

Fig. 1

SEQ ID NO: 230

MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVVYPDKVFRSSVLHSTQDLFLPFFSNVTWFWHAIHVSGTNGTKRFD
NPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSTQSLIVNNATNVVIVCEFCNDPFLGVVYHKNNKSWMESEFRVYS
SANNCTFEYVSQPFLMDLEGKQGNFKNLREFVFNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVDLPIGINITRFQTLAL
HRSYLTPGDSSSGWTAGAAAYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETKCTLSFTVEKGIYQTSNFRVQPT
SIVRFPNITNLCPFGEVFNATRFASVYAWNKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGD
EVRQIAPGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNLYRLFRKSNLKPFERDISTEYQAGSTPCNGVEG
FNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTGTGVLTESNKKFLPFQ
FGRDIADTTDAVRDPQTLEILDITPCSFGGVSVITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTG
RAGCLIGAEHVNNSECDIPIGAGICASYQTQTNPRRARSVASQSIIAYTMSLGAENSVAYSNNNSIAIPTNFTISVT
TEILPV
SMTKTSVDCTMYICGDSTECNLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTPPIKDFGGFNFSQILPDPS
KPSKRSFIEDLLFNKVTADAGFIKQYGDCLGDIARDLCAQKFNGLTVLPPLLTDEMIAQYTSALLAGTITSGWTFGAGAA
LQIPFAMQMAYRFNGIGVTQNVLYENQKLIANQFNSAIGKIQDSLSTASALGKLQDVVNQNAQALNTLVKQLSSNFGAIS
SVLNDILSRDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYHLMSPFQS
APHGVVFLHVITYVPAQEKNTTAPAICHGDKAHFPREGVFVSNGTHWFTQRNFYEPQIITDNTFVSGNCDVVIGIVNNT
VYDPLQPELDSFKEELDKYFKNHTSPDVLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEYIKWPWYIWL
GFIAGLIAIVMTIMLCCMTSCCCLKGCCSCGSCCKFDEDDSEPVLGKVKLHYT

Fig. 2**A:** SEQ ID NO: 231

NITNLCPFGEVFNATRFASVYAWNRRKRISNCVADYSVLVNSASFSTFKCYGVSPTKLNLCFTNVYADSFVIRGDEVQRQIA
PGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFP
LQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNGLTGTGVLTESNKKFLPFQQFGRDIA
DTTDAVRDPQTLE

B: SEQ ID NO: 802

RVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRRKRISNCVADYSVLVNSASFSTFKCYGVSPTKLNLCFTNVYADS
FVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPC
NGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

C: SEQ ID NO: 803

RVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRRKRISNCVADYSVLVNSASFSTFKCYGVSPTKLNLCFTNVYADS
FVIRGDEVQRQIAPGQTGNIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPC
NGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

D: SEQ ID NO: 804

RVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRRKRISNCVADYSVLVNSASFSTFKCYGVSPTKLNLCFTNVYADS
FVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPC
NGVEGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

E: SEQ ID NO: 805

RVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRRKRISNCVADYSVLVNSASFSTFKCYGVSPTKLNLCFTNVYADS
FVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYRYRLFRKSNLKPFERDISTEIQAGSTPC
NGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 3

SEQ ID NO: 232

DVDLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDL

Fig. 4

SEQ ID NO: 233

MQVSTAALAVLLCTMALCNQVLS |
APLAADTPTACCFSTSRQIPQNFIAFYFETSSQCSKSPSVIFLTRGRQVCADPSEEWVQKYVSDLELSA |
ELKTPGLDTHHT | EPKSCDTPPPCPRCP | GGGSSGGGSG |
GQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESSGPENNYNTTPMLDSGGSFFLYSKLTVDKSRWQ
QGNIFSCSVMEALHNRFQKSLSLSPGK | GLGGL |

Fig. 5

SEQ ID NO: 234

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSYTSRQIPQNFADYFETSSQCCKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSA

Fig. 6

SEQ ID NO: 235

MNFGLRLIFLVLTLKGVQC

Fig. 7

SEQ ID NO: 236

MDAMKRGLCCVLLLCGAVFVSP

Fig. 8

SEQ ID NO: 237

MTYRRLISMMGFKMNYQVNGYPNMFGGGGSGGGGSFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAGGGGSGG
GGSRSFIEDLLFNKVTLALMIERFVSLAIDAYPGGGGSGGGGSRAMPNMLRIMASLVLVMPASWVMRIMTWGGGGG
GGGGSHFAIGLALYYPSARIVYTACSHAAVGGGGSGGGGSYFIKGLNNLNRGMVLYLNTLTLAVPYNMRVGGGGSGG
GSNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEV
QIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGNNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNC
YFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 9

SEQ ID NO: 238

MTYRRLISMMGFKMNYQVNGYPNMFGGGGSGGGGSHVISTSHKLVLVSNPYVGGGGSGGGGSFLNRFTTTLNDFNLV
AMSSVELKHFFFAQDGNAAGGGGSGGGGSHFAIGLALYYPSARIVYTACSHAAVGGGGSGGGGSRAMPNMLRIMASL
VLVMPASWVMRIMTWGGGGSGGGGSRSFIEDLLFNKVTLALMIERFVSLAIDAYPGGGGSGGGGSAQFAPSASAFF
GMSRIEIVDTVSALVYDNKLSGGGGSGGGGYFIKGLNNLNRGMVLYLNTLTLAVPYNMRVSGGGGSGGGSSGDATTA
YANSVFNICQAVTANVNALLGGGGSGGGGSNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKC
YGVSPTKLNDLCFTNVYADSFVIRGDEVRIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGNNYLYRLFRKS
NLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 10

SEQ ID NO: 239

MTYRRLLISMMGFKMNYQVNGYPNMFGGGGSGGGGSHVISTSHKLVL SVN PYVASIKNFKSVLYYQNNVFMGGGGSGG
GGSYFIKGLNNLNRMVLYLNTLTLAVPYNMRVGGGGSGGGGSMLSDTLKNLSDRVVFVLWAHGFELSGGGGGSGGGG
HFAIGLALYYPSARIVYTACSHAAVGGGGSGGGGSRFIEDLLFNKVTALMIERFVSLAIDAYPGGGGGSGGGGSRAMPN
MLRIMASLVL MVMPASWVMRIMTWGGGGSGGGGSRVWTL MNVLT LVYKVFAYANRNRFLYIIKLSGGGGSGGGGAQ
FAPSASAFFGMSRIEIVDTVSALVYDNKLSGGGGSGGGGFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAISGGGG
GGGGSSGDATTAYANSVFNICQAVTANVNALLSGGGGGSGGGGTANPKTPKYKFVRIQPGQTFFVNEFYAYLRKHFSMM
GGGGSGGGGSNITNLCPFGEVFNATRFASVYAWNRRKRISNCVADY SVLYNSASFSTFKCYGVSP TKLNDLCFTNVYADS
FVIRGDEV RQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVG GNYNYLYRLFRKSNLKPFERDISTEIQAGSTPC
NGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 11

SEQ ID NO: 240

MTYRRLLISMMGFKMNYQVNGYPNMFGGGGSGGGGSHVISTSHKLVL SVN PYVASIKNFKSVLYYQNNVFMGGGGSG
GGGGSSGDATTAYANSVFNICQAVTANVNALLSGGGGGSGGGGFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAIGGG
GGGGGGSM LSDTLKNLSDRVVFVLWAHGFELSGGGGGSGGGGHFAIGLALYYPSARIVYTACSHAAVGGGGSGGGGSR
SFIEDLLFNKVTALMIERFVSLAIDAYPGGGGGSGGGGSRAMPNMLRIMASLVL MVMPASWVMRIMTWGGGGSGGGG
SVQMAPISAMVRMYIFFASFYYWKSYYHVGGGGSGGGGSRVWTL MNVLT LVYKVFAYANRNRFLYIIKLSGGGGSGG
GGAQFAPSASAFFGMSRIEIVDTVSALVYDNKLSGGGGSGGGGSLLMPILTLTRALTAYTVELGTEVNEFACVGGGGSG
GGGSYFIKGLNNLNRMVLYLNTLTLAVPYNMRVGGGGSGGGGSTVYTKVDGVDVELFENKTTLPVNVAFGGGGGSGG
GSTANPKTPKYKFVRIQPGQTFFVNEFYAYLRKHFSMMGGGGSGGGGSNITNLCPFGEVFNATRFASVYAWNRRKRISNC
VADY SVLYNSASFSTFKCYGVSP TKLNDLCFTNVYADSFVIRGDEV RQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNL
SKVG GNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 12

SEQ ID NO: 241

KMFDAYVNTFSSTFNVRVYSTGSNVFQTRAGGSSGGGSSGGSVAYSNNIAIPTNFTISVTTEIGGGGGSGGGGSTANPK
TPKYKFVRIQPGQTFFVNEFYAYLRKHFSMMGGGGSGGGGSTVYTKVDGVDVELFENKTTLPVNVAFGGGGGSGGGG
YFIKGLNNLNRMVLYLNTLTLAVPYNMRVGGGGSGGGGSLVKPSFYVYSRVKNLVQQESPFVMMMSAPPAQYELSGGG
GGGGGMLSDTLKNLSDRVVFVLWAHGFELSGGGGGSGGGGHFAIGLALYYPSARIVYTACSHAAVGGGGSGGGGSR
FIEDLLFNKVTALMIERFVSLAIDAYPGGGGGSGGGGSRAMPNMLRIMASLVL MVMPASWVMRIMTWGGGGSGGGG
VQMAPISAMVRMYIFFASFYYWKSYYHVGGGGSGGGGSRVWTL MNVLT LVYKVFAYANRNRFLYIIKLSGGGGSGG
GAQFAPSASAFFGMSRIEIVDTVSALVYDNKLSGGGGSGGGGSLLMPILTLTRALTAYTVELGTEVNEFACVGGGGSG
GGGFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAISGGGGSGGGGSSGDATTAYANSVFNICQAVTANVNALLSG
GGGGGGGHVISTSHKLVL SVN PYVASIKNFKSVLYYQNNVFMGGGGSGGGGSMTYRRLLISMMGFKMNYQVNGYPNMF
GGGGSGGGGSGDDTVIEVQGYKSVNITFELDERIGGGGGSGGGGSNITNLCPFGEVFNATRFASVYAWNRRKRISNCVAD
Y SVLYNSASFSTFKCYGVSP TKLNDLCFTNVYADSFVIRGDEV RQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSK
VG GNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 13

SEQ ID NO: 242

MTYRRLISMMSGFKMNYQVNGYPNMFSGGGSGGGGSHVISTSHKLVLVSNPYVASIKNFKSVLYYQNNVFMGGGGSGG
GGSYFIKGLNNLNRMVLYLNTLTAVPYNMRVGGGGSGGGGSMLSDTLKNLSDRVVFVLWAHGFELSGGGSGGGG
HFAIGLALYPSARIVYTACSHAAVGGGGSGGGGSRFIEDLLFNKVTALMIERFVSLAIDAYPGGGSGGGGSNITNLC
PFGEVFNATRFASVYAWNRKRISNCVADYSVLVNSASFSTFKCYGVSPKTLNDLCFTNVYADSFVIRGDEVQRQIAPGQTG
KIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYG
FQPTNGVGYQPYRVVLSFELLHAPATGGGGSGGGGSRAMPNMLRIMASLVLVMPASWVMRIMTWGGGGSGGGG
SRVWTLMNVLTLVYKVFAYANRNRFLYIIKLSGGGGSGGGGAQFAPSASAFFGMSRIEIVDTVSAVLDNKLGGGGSGG
GGFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAISGGGGSGGGSSGDATTAYANSVFNICQAVTANVNALLSGGG
SGGGGTANPKTPKYKFVRIQPGQTFFVNEFYAYLRKHFSMM

Fig. 14

SEQ ID NO: 243

NITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLVNSASFSTFKCYGVSPKTLNDLCFTNVYADSFVIRGDEVQRQI
PGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYF
LQSYGFQPTNGVGYQPYRVVLSFELLHAPATGGGGSGGGGSMTYRRLISMMSGFKMNYQVNGYPNMFSGGGSGGGG
SHVISTSHKLVLVSNPYVASIKNFKSVLYYQNNVFMGGGGSGGGGSGSYFIKGLNNLNRMVLYLNTLTAVPYNMRVGGG
SGGGSGSMLSDTLKNLSDRVVFVLWAHGFELSGGGSGGGGHFAIGLALYPSARIVYTACSHAAVGGGGSGGGGSR
SFIEDLLFNKVTALMIERFVSLAIDAYPGGGSGGGGSRAMPNMLRIMASLVLVMPASWVMRIMTWGGGGSGGGG
SRVWTLMNVLTLVYKVFAYANRNRFLYIIKLSGGGGSGGGGAQFAPSASAFFGMSRIEIVDTVSAVLDNKLGGGGSGG
GGFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAISGGGGSGGGSSGDATTAYANSVFNICQAVTANVNALLSGGG
SGGGGTANPKTPKYKFVRIQPGQTFFVNEFYAYLRKHFSMM

Fig. 15

SEQ ID NO: 244

MTYRRLISMMSGFKMNYQVNGYPNMFHVISTSHKLVLVSNPYVASIKNFKSVLYYQNNVFMFYFIKGLNNLNRMVLYLNTL
TLAVPYNMRVMSLSDTLKNLSDRVVFVLWAHGFELHFAIGLALYPSARIVYTACSHAAVRSFIEDLLFNKVTALMIERFVS
LAIDAYPRAMPNMLRIMASLVLVMPASWVMRIMTWVWTLMNVLTLVYKVFAYANRNRFLYIIKLAQFAPSASAFFGM
SRIEIVDTVSAVLDNKLFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAISSGDATTAYANSVFNICQAVTANVNALLT
ANPKTPKYKFVRIQPGQTFFVNEFYAYLRKHFSMMNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLVNSAFS
TFKCYGVSPKTLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNYLYRL
FRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 16

SEQ ID NO: 245

MTYRRLISMMSGFKMNYQVNGYPNMFSGGGSGGGGSHVISTSHKLVLVSNPYVASIKNFKSVLYYQNNVFMGGGGSGG
GGSYFIKGLNNLNRMVLYLNTLTAVPYNMRVGGGGSGGGGSMLSDTLKNLSDRVVFVLWAHGFELSGGGSGGGG
HFAIGLALYPSARIVYTACSHAAVGGGGSGGGGSRFIEDLLFNKVTALMIERFVSLAIDAYPGGGSGGGGSRAMPN
MLRIMASLVLVMPASWVMRIMTWGGGGSGGGGSRVWTLMNVLTLVYKVFAYANRNRFLYIIKLSGGGGSGGGGAQ
FAPSASAFFGMSRIEIVDTVSAVLDNKLGGGGSGGGGFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAISGGGG
GGGGSSGDATTAYANSVFNICQAVTANVNALLSGGGSGGGGTANPKTPKYKFVRIQPGQTFFVNEFYAYLRKHFSMM

Fig. 17

SEQ ID NO: 246

NITNLCPFGEVFNATRFASVYAWNRRKRISNCVADYSVLVNSASFSTFKCYGVSP TKLNDLCFTNVYADSFVIRGDEV RQIA
PGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVEGFNCYFP
LQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 18

SEQ ID NO: 247

KMFDAYVNTFSSTFNVRVYSTGSNVFQTRAGGSSGGGSSGGGSVAYSNNNSIAIPTNFTISVTTEIGGGGSGGGGSGSTANPK
TPKYKFVRIQPGQTFVNEFYAYLRKHFSMMGGGSGGGGSGSTVYTKVDGVDVELFENKTTLPVNVAFGGGSGGGGSG
YFIKGLNNLNRMVLYLNTLTLAVPYNMRVGGGSGGGGSLVKPSFYVYSRVKNLVQCESPFVMMMSAPPAQYELSGGG
GSGGGGMLSDTLKNLSDRVFLVAHGFELSGGGSGGGGSHFAIGLALYYP SARIVYTACSHAAVGGGSGGGGSGRS
FIEDLLFNKVTALMIERFVSLAIDAYPGGGSGGGGSRAMPNMLRIMASVLMVYMPASWVMRIMTWGGGSGGGGSG
VQMAPISAMVRMYIFFASFYVWKSYYVHVGGGGSGGGGSRVWTLMNVLTLVYKVFAYANRRNFLYIIKLSGGGSGGGG
GAQFAPSASAFFGMSRIEIVDTVSALVYDNKLSGGGSGGGGSGLLMPILTLTRALTAYTVELGTEVNEFACVGGGSGGG
GGSFLNRFTTTLNDNFNLVAMSSVELKHFFFAQDGNAAISGGGSGGGGSGGDATTAYANSVFNICQAVTANVNALLSGG
GGSGGGGHVISTSHKLVLVSNPYVASIKNFKSVLYYQNNVFMGGGSGGGGSGMTYRRLISMMGFKMNYQVNGYPNMF
GGGSGGGGSGFGDDTVIEVQGYKSVNITFELDERI

Fig. 19

SEQ ID NO: 248

MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVVYPDKVFRSSVLHSTQDLFLPFFSNVTWFHAIHVSGTNGTKRFD
NPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLIVNNATNVVIVKCEFCNDPFLGVYHKNKNSWMESEFRVYS
SANNCTFEYVSQPFLLMDLEGKQGNFKNLREFVFNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVDLPIGINITRFQTL LAL
HRSYLT PGDSSSGWTAGAAAYYVGYLQPRFTLLKYNENGTITDAVDCALDPLSETKCTLKSFTVEKGIYQTSNFRVQPT E
SIVRFPNITNLCPFGEVFNATRFASVYAWNRRKRISNCVADYSVLVNSASFSTFKCYGVSP TKLNDLCFTNVYADSFVIRGD
EVRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVEG
FNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTGTGVLTESNKKFLPFQ Q
FGRDIADTTDAVRDPQTLEILDITPCSFGGVSVITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTGSNVFQT
RAGCLIGAEHVNNSECDIPIGAGICASYQTQTN SPRRARSVASQSIAYTMSLGAENSVAYSNNNSIAIPTNFTISVTTEILPV
SMTKTSVDCTMYICGDSTEC SNLLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTPPIKDFGGFNFSQILPDPS
KPSKRSFIEDLLFNKVTADAGFIKQYGDCLGDIAARDLICAQKFNGLTVLPPLLTDEMIAQYTSALLAGTITSGWTFGAGAA
LQIPFAMQMAYRFNGIGVTQNVLYENQKLIANQFN SAIGKIQDSLSTASALGKLQDVVNQNAQALNTLVKQLSSNFGAIS
SVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYHLMSPFQS
APHGVVFLHVTYVPAQEKNF TTAICHGDKAHFPREGVFVSNGTHWFVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNT
VYDPLQPELDSFKEELD KYFKNHTSPDVLDGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYIWL
GFIAGLIAIVMVTIMLCCMTSCCCLKGCCSCGSCCKFDEDDSEPV LKGVKLHYT

Fig. 20

SEQ ID NO: 249

DVDLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIK

Fig. 21

SEQ ID NO: 250

KMFDAYVNTFSSTFNVRVYSTGSNVFQTRAGGSSGGGSSGGGSVAYSNNNSIAIPTNFTISVTTEIGGGGSGGGGSGSTANPK
TPKYKFVRIQPGQTFFVNEFYAYLRKHFSMMGGGSGGGGSGSTVYTKVDGVDVELFENKTTLPVNVAFGGGSGGGGSG
YFIKGLNNLNRMVLYLNTLTLAVPYNMRVGGGSGGGGSLVKPSFYVYSRVKNLVQQESPFFVMMSAPPAQYELSGGG
GSGGGGMLSDTLKNLSDRVVFLWAHGFELSGGGSGGGGHFAIGLALYYPSARIVYTACSHAAGGGGSGGGGSGRS
FIEDLLFNKVTALMIERFVSLAIDAYPGGGSGGGGSRAMPNMLRIMASLVMVMPASWVMRIMTWGGGSGGGGSG
VQMAPISAMVRMYIFFASFYYWKSYYVHVGGGGSGGGGSRVWTLMNVLTLVYKVFAYANRNRFLYIIKLSGGGSGGGG
GAQFAPSASAFFGMSRIEIVDTVSALVYDNKLSGGGSGGGGSLMPILTLTRALTAYTVELGTEVNEFACVGGGSGGG
GGSFLNRFTTTLNDFNLVAMSSVELKHFFFAQDGNAAISGGGSGGGGSGDATTAYANSVFNICQAVTANVNALLSGG
GGSGGGGHVISTSHKLVLVSNPYVASIKNFKSVLYYQNNVFMGGGSGGGGSGMTYRRLISMMGFKMNYQVNGYPNMF
GGGSGGGGSGFDDTVIEVQGYKSVNITFELDERIGGGSGGGGSDVDLGDISGINASVVNIQKEIDRLNEVAKNLNESLI
DLQELGKYEQYIK

Fig. 22

SEQ ID NO: 251

DVDLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKGGGSGGGGSGKMFDAYVNTFSSTFNVRVYSTG
SNVFQTRAGGSSGGGSGGGSVAYSNNNSIAIPTNFTISVTTEIGGGSGGGGSGSTANPKTPKYKFVRIQPGQTFFVNEFYAY
LRKHFSMMGGGSGGGGSGSTVYTKVDGVDVELFENKTTLPVNVAFGGGSGGGGSGYFIKGLNNLNRMVLYLNTLTLAV
PYNMRVGGGSGGGGSLVKPSFYVYSRVKNLVQQESPFFVMMSAPPAQYELSGGGSGGGGMLSDTLKNLSDRVVFL
WAHGFELSGGGSGGGGHFAIGLALYYPSARIVYTACSHAAGGGGSGGGGSGRSFIEDLLFNKVTALMIERFVSLAID
AYPGGGSGGGGSRAMPNMLRIMASLVMVMPASWVMRIMTWGGGSGGGGSGVQMAPISAMVRMYIFFASFYYWW
KSYVHVGGGGSGGGGSRVWTLMNVLTLVYKVFAYANRNRFLYIIKLSGGGSGGGGGAQFAPSASAFFGMSRIEIVDTVS
ALVYDNKLSGGGSGGGGSGLLMPILTLTRALTAYTVELGTEVNEFACVGGGSGGGGSGFLNRFTTTLNDFNLVAMSSVE
LKHFFFAQDGNAAISGGGSGGGGSGDATTAYANSVFNICQAVTANVNALLSGGGSGGGGHVISTSHKLVLVSNPYV
ASIKNFKSVLYYQNNVFMGGGSGGGGSGMTYRRLISMMGFKMNYQVNGYPNMFGGGSGGGGSGFDDTVIEVQGYK
SVNITFELDERIGGGSGGGGSGNITNLCPFGEVFNATRFASVYAWNKRKISNCVADYSVLYNSASFSTFKCYGVSPTKLN
DLCFTNVYADSFVIRGDEVRIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLRLFRKSNLKPFERDIS
TEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 23

A. SEQ ID NO: 252

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCCTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCAGTGACCTGGAGCTGAGTGCCGAGCTCAAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGTGACACACCTCCCCGTGCCAAGGTGCCAAGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACAATAACAACACCGCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCCTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAAGGCCTCGGTGGCTGAATATTACTAACCTGTGCCCATTCGGCGAGGTGTT
CAACGCAACCCGGTTTGCAAGCGTGTACGCATGGAACAGAAAGCGGATTAGCAACTGCGTCGCCGACTACAGCGTG
CTCTACAACAGCGCATATTCTCCACATTCAAGTGTTACGGAGTGTCACCCACTAAGCTGAACGACCTCTGCTTCACA
AATGTCTACGCCGATTCTTCGTGATCCGGGGAGATGAAGTCAGGCAGATTGCACCAGGACAGACTGGCAAAATCG
CTGACTACAATAAGCTGCCAGACGATTTCACTGGCTGCGTGATTGCATGGAACAGCAATAACCTGGACTCAAAG
GTCGGCGGTAATTATAACTACCTGTATCGGCTGTTCAGAAAGAGCAACCTGAAGCCCTTCGAGCGGGACATCTCCAC
CGAAATCTACCAGGCAGGCTCAACACCTGCAACGGAGTGGAAGGCTTCAACTGCTATTTCCCCCTGCAGTCTTACG
GTTTTAGCCAACAAACGGTGTGGGCTATCAGCCATACAGGGTGGTCTGCTGAGCTTCGAACTGCTCCATGCCCC
CGCTACA

B. SEQ ID NO: 253

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHLEALHNRFTQKSLSLSPGK
GLGGLNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLNYSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGD
EVRQIAPGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGNNYNYLRLFRKSNLKPFERDISTEIQAGSTPCNGVE
GFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT

Fig. 24

A. SEQ ID NO: 254

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCCTAACCAAGAGAGGCCGCGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCAGTGACCTGGAGCTGAGTGCCGAGCTCAAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGTGACACACCTCCCCCGTGCCCAAGGTGCCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACAATAACAACACCGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCCTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAAGGCCTCGGTGGCCTGCGAGTCCAGCCACAGAATCAATCGTGCGGTTTC
CAAACATCACCAATCTCTGCCCTTCGGAGAAGTGTTAATGCCACACGGTTTGCCTCAGTGTATGCCTGGAACCGG
AAGAGAATCTCCAATGCGTGGCAGACTATTCTGTGCTGTACAACAGCGCCTCCTTCTACTTTCAAGTGCTACGG
CGTGTCTCCTACTAAGCTGAACGATCTCTGCTTCAAAACGTGTATGCCGATTCCTTTGTGATCAGAGGAGACGAAG
TGCGACAGATTGCTCCTGGACAGACCGGGAAGATTGCCGACTACAATAAGCTGCCAGACGATTTCACTGGCTG
CGTTATTGCCTGGAATTCAAACAACCTCGATTCCAAAGTGGGCGGGAATTATAACTACCTCTATAGACTGTTCCGTAA
GTCTAACCTGAAGCCATTGAGCGTGATATTAGCACCGAAATCTACCAGGCAGGTTCAACTCCTTGTAACGGAGTGG
AGGGATTCAACTGCTACTTCCCACTGCAGTCCTATGGGTTCCAGCCTACAAACGGAGTGGGGTACCAGCCTTATCG
GGTCGTTGTGCTGTCCTTTGAGCTGCTCCACGCTCCTGCAACTGTTTGCGGACCTAAGAAATCCACCAACCTGGTGA
AGAACAAGTGCCTGAATTC

B. SEQ ID NO: 255

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGSSGGSGGQPREPQVYTLPPSREEMTKNQVSLTCL
VKGFYPSDIAVEWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCVMHEALHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLVNSASFSTFKCYGVSPTKLNDLCFTN
VYADSFVIRGDEVRIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFRDISTEIYQA
GSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 25A. SEQ ID NO: 256

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTAACCAGAGAGGCCGCGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCACTGACCTGGAGCTGAGTGCCGAGCTCAAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGTGACACACCTCCCCGTGCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAAGTGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACAATAACAACACCACGCTCCCATGCTGGACTCCGACGGCTCCTTCTCTCTACAGCAAGCTCACCCTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACAGCAG
AAGAGCCTCTCCCTGTCTCCGGGTAAAGGCCTCGGTGGCCTGGTGAACCTGACAACCAGAACCAGCTGCCTCTG
CTTATACCAATAGTTTTACTCGGGGCGTCTACTACCCTGACAAAGTGTTCGGAGCAGTGCTGCTAGCAGCCAG
GACCTGTTCTCCCTTCTTCACTAATGTCACTTGGTTCATGCAATCCACGTGTGAGTACTAATGGTACAAAAAGG
TTCGACAACCCAGTTCTGCCCTTCAATGACGGCGTTTACTTCGCCAGTACCGAAAAGTCTAATATCATTCTGGTGTG
GATCTTCGGAACAACCTGGACAGTAAGACCCAGTCTCTGCTCATTGTTAATAACGCCACAAATGTCGTGATCAAAG
TTTGTGAATTTCAATTTGTAACGATCCATTCTGGGCGTCTACTACCATAGAATAAAGAGCTGGATGGAAAGC
GAGTTTCGAGTCTACAGCAGTGCCAATAATTGTACATTGAGTACGTTTCTCAGCCTTCTCTGATGGACCTGGAGGG
CAAGCAGGGAAATTTCAAAATCTCCGTGAATTTGTCTTTAAGAATATTGACGGCTACTTCAAAATCTACAGCAAGCA
CACCCCGATTAATCTGGTTCGAGACCTGCCACAGGGCTTCAGTGCACTGGAGCCCTGGTTGATCTGCCAATCGGA
ATTAATATCACTAGGTTCCAGACCCTGCTGGCACTGCATCGTAGTTACCTCACACCTGGGGATTCTAGTTCGGGCTG
GACTGCTGGGGCAGCCGCCTACTATGTGGGATATCTCCAGCCTCGCACATTTCTGCTGAAGTATAATGAGAACGGT
ACTATTACCGACGAGTGGACTGTGCACTCGACCCACTGAGTGAGACTAAATGCACCCTCAAAAGTTTACCCTCGA
GAAGGGTATCTACCAGACATCCAATTTCCGCGTGCAGCCTACTGAGTCCATCGTGCCTTCCCAAATATACCAATC
TGTGCCCATTCGGTGAAGTTTTCAATGCTACTCGCTTTGCTAGTGTTTACGCATGGAACAGAAAGAGGATCTCAAAC
TGCGTGGCTGACTATAGCGTTCTGTACAATTCTGCAAGTTTTTCTACTTTTAAATGTTACGGCGTTAGTCCCTACCAA
CTGAACGACCTCTGTTTCACCAACGTCTACGCTGACTCTTCTGTCATCCGGGGCGATGAAGTTCGACAGATCGCCCC
AGGCCAGACAGGAAAGATCGCAGACTACAATTACAAGCTGCCAGATGACTTACCCGGCTGCGTTATTGCCTGGAAC
TCCAATAATCTGGACAGCAAAGTGGGTGGGAACTACAACCTACCTCTACCGCCTCTTCAGAAAGAGTAATCTGAAGCC
GTTTGAGCGCGATATTTCCACCGAAATCTATCAGGCCGGAAGCACACCGTGAATGGAGTGAAGGGTTCAATTGTT
ACTTTCGCTCCAGAGCTACGGGTTCAGCCCCACAAATGGGGTTGGATATCAGCCTTACAGGGTGGTTGTTCTGTCT
TTTGAGCTGCTGCATGCACCAGCTACCGTCTGCGGGCCCAAGAAGAGCACCAATCTCGTCAAGAACAAGTGCCTGA
ATTTCAACTTCAACGGGCTCACCGGGACCGGCGTCTGACAGAGTCTAATAAGAAATTTCTGCCCTTCCAGCAGTTT
GGAAGAGACATCGCTGATACCACAGACGCCGTCCGGATCCCCAGACACTGGAAATCCTCGACATCACACCATGTA
GCTTTGGGGGAGTTAGCGTCAATTACACAGGAATAATACTAGCAATCAGGTGGCGTCTGTACCAGGACGTGAA
TTGTACAGAAGTTCCAGTCGCTATCCACGCAGACCAGCTGACCCCGACTTGGCGCGTGTACTCCACAGGATCTAAC
GTGTTCCAGACAGTGGCGGCTGCCTGATTGGGGCTGAGCACGTCAACAATTCTTACGAGTGTGACATTCCCATCG
GAGCCGGAATCTGTGCTTCTTACCAGACCCAGACAACTCTCCTTACAGGACCCGGATCCGTTGCTTCTCAGTCAATC
ATCGCCTATACTATGAGCCTGGGTGCCGAAAATCTGTTGCTTATTCTAACAATAGCATTGCTATCCCGACCAATTTT
ACCATCTCTGTCAACCTGAGATCCTGCCAGTCTCCATGACCAAGACCTCCGTCGACTGTACAATGTATTTGTGGA
GACTCAACCGAGTGCTTAACCTCCTGCTGCAGTATGGATCCTTCTGCACCCAGCTCAACAGGGCACTGACCGGAAT
TGCTGTGCAACAGGACAAGAACAACCTCAGGAGGTCTTCGCACAGGTCAAGCAGATATAAAGACCCCCCTATCAAA
GACTTTGGGGGATTCAACTTCTCCAGATCTCCCCGATCCTTCTAAGCCATCAAAGCGGAGTTTCATTGAGGATCT
GCTCTTCAACAAGGTCAACCTCGCTGACGCTGGCTTCAATTAAGCAGTACGGAGACTGTCTGGGGGACATCGCAGCA
AGAGACCTGATCTGCGCCCAAGAAGTTCAACGGACTGACAGTCTGCGGCCCTGCTCACTGATGAAATGATCGCCC
AGTATACAAGTGCTCTGCTCGCCGGAACCATCACTTCCGGGTGGACCTTCCGAGCAGGCGCAGCCCTGCAGATCCC
TTTCGCCATGCAGATGGCCTACCGGTTCAATGGCATCGGCGTGACCCAGAATGTCCTGTATGAGAATCAGAAGCTG
ATCGCAATCAGTTCAACAGCGCCATCGGAAAAATTCAGGACTCACTCTAGTACCGCCTCAGCCCTGGGAAAACT
CCAGGATGTTGTGAACCAAGTCTCAGGCTCTCAACACTCTGGTTAAACAGCTCAGCAGCAATTTCCGTGCCATTA
GCTCCGTCTGAATGACATCTCAGCCGTCTCGATCCACCGGAAGCTGAAGTCCAGATCGATCGTCTCATCACAGGA
CGACTGCAGAGCCTGCAGACCTACGTGACCCAGCAGCTCATCCGCGTGGCGAAATTCGAGCCAGCGCCAATCTCG
CAGCTACAAAAATGAGCGAGTGCGTCTGGGACAGTCCAAGAGAGTTGATTTCTGCGGGAAGGGCTATCATCTCAT

Fig. 25A. continued

GTCTTTCCACAGTCTGCACCACACGGCGTGTTTCTCTGCACGTACCTACGTCCCAGCCCAGGAGAAGAAGCTTTA
CCACCGCTCCAGCCATTTGTCATGACGGCAAAGCCCATTTCCGCGCGAAGGAGTTTTCGTCAGCAATGGGACTCAC
TGGTTTGTCACTCAGCGCAATTTCTATGAACCACAGATTATTACAACCGATAATACCTTCGTCAAGTGGTAATTGTGAC
GTAGTGATCGGCATCGTTAACAATACAGTCTATGATCCGCTGCAGCCTGAGCTCGACAGCTTCAAGGAGGAGCTGG
ACAAGTACTTCAAGAACCACACCAGCCCTGACGTGGATCTCGGCGACATTTCTGGCATTAAATGCCTCTGTCGTAAT
ATCCAGAAGGAAATCGACCGACTGAATGAAGTCGCAAAGAATCTGAACGAGAGTCTGATTGATCTGCAGGAGCTGG
GAAAATACGAACAGTACATC

Fig. 25B. SEQ ID NO: 257

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGSSGGSGGQPREPQVYTLPPSREEMTKNQVSLTCL
VKGFPYSDIAVEWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCVMHEALHNRFTQKSLSLSPGK
GLGGLVNLTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFSNVTWFHAIHVSGTNGTKRFDNPVLPFNDGV
YFASTEKSNIIRGWIFGTTLDSTQSLNINATNVVIKVECFQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYV
SQPFLMDLEGKQGNFKNLREFVFNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVDLPIGINITRFQTLALHRSYLTGDS
SSGWTAGAAAYYVGYLQPRFTLLKYNENGTITDAVDCALDPLSETKCTLSFTVEKGIYQTSNFRVQPTESIVRFPNITNLC
PFGEVFNATRFASVYAWNRKRISNCVADYSVLNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVRIAPGQTG
KIADYNKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYG
FQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTGTGVLTESNKKFLPFQFGRDIADTTDAV
RDPQTLEILDITPCSFGGVSVITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTGSNVFQTRAGCLIGAEHVN
NSYECDIPIGAGICASYQTQTNPSGAGSVASQSIIAYTMSLGAENSVAYSNNIAIPTNFTISVTTEILPVSMTKTSVDCTM
YICGDSTECNLLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSFIEDLL
FNKVTLADAGFIKQYGDCLGDIAARDLCAQKFNGTLVLPPLTDEMIAYTSALLAGTITSGWTFGAGAALQIPFAMQMAY
RFNGIGVTQNVLYENQKLIANQFNSAIGKIQDSLSTASALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRDLP
PEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYHLSMSPQSAPHGVVFLHVTY
VPAQEKNFTTAPAICHGKAHFPREGVFVSNGTHWFVTQRNFYEPQIITDNTFVSGNCDVVIGIVNNTVYDPLQPELDSF
KEELDKYFKNHTSPVDLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYI

Fig. 26

A. SEQ ID NO: 258

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCACTGACCTGGAGCTGAGTGCCGAGCTCAAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCGTGCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACAACACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGG
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTCACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAAGGCCTCGGTGGCCTGATGACTTATCGCAGACTGATCTCCATGATGGGGT
TCAAGATGAACTACCAGGTCAATGGCTATCCCAACATGTTCCGTGGGGGTGGTCTGGCGGGGGTGAAGCCACGT
GATCTCTACCTCCCAAGCTGGTCTGTCCGTGAACCCCTACGTGGCCTCCATCAAAACTTTAAGTCCGTGCTCT
ATTATCAGAATAACGTGTTGATGGGTGGAGGGGGCTCTGGAGGTGGCGGGTCATACTTTATTAAGGGCCTGAATAA
CCTCAACAGGGGGATGGTGTGTATCTCAACACCCTGACTCTCGCCGTGCCTTACAATATGCGCGTGGGTGGTGGT
GGCTCTGGCGGTGGCGGTTCTATGCTGTCTGATACACTGAAGAATCTGTCCGACCGAGTGGTGTTCGCTCTGTGGG
CACACGGTTTTGAGCTGTGAGGGGGTGGAGGGTCTGGCGGAGGCGGGCATTTGCGCATCGGTCTCGCCCTGTATT
ACCTTCCGACCGATCGTCTATACTGCCTGTTCCCATGCAGCAGTGGGGGTGGAGGGTCCGGCGGAGGTGGCT
CCAGGTCTTTTATTGAGGACCTCTGTTCAACAAGGTGACCTGGCTCTGATGATCGAGCGGTTTGTCTCCCTGGCT
ATTGATGCATACCCAGGTGGCGGAGGGTCAGGTGGAGGCGGGTCCCGGGCTATGCCAACATGCTGAGAATCATG
GCATCTCTGGTGCTCATGGTGTACATGCCTGCAAGCTGGGTGATGCGAATTATGACATGGGGGGGAGGCGGTAGC
GGTGGCGGAGGCTCAAGAGTCTGGACACTCATGAACGTGCTGACTCTCGTGACAAAGTGTGTTGCTTACGCCAATC
GCAACAGGTTTCTGTACATTATCAAGCTCTCCGGTGGCGGAGGTTCCGGGGGAGGGGGCGCCAGTTCCGTCCATC
CGCTCAGCATTCTTCGGTATGAGTCGGATCGAGATTGTCGATACCGTGTCTGCACTGGTCTATGACAATAAGCTGA
GCGGAGGTGGTGGTCCGGCGGTGGGGGGTCTGAACAGGTTCAACCACTCTCAACGACTTTAATCTGGTCG
CCATGTCAAGCGTCGAACTCAAGCATTTCTTCTTGGCCAGGATGGCAACGCAGCTATCTCCGGTGGAGGAGGTAG
TGGCGGCGGTGGATCTTCCGGCGATGCTACCACCGCCTACGCTAATCCGTGTTAACATTTGCCAGGCTGTGACT
GCTAACGTGAATGCACTGCTGTCTGGTGGCGGGGGCAGCGGGGGCGGGGGTACTGCCAACCTTAAGACTCCCAAG
TACAAATTCGTCCGCATCCAGCCTGGCCAGACTTTCTTCGTGAACGAGTTTTACGCTTATCTGCGGAAGCACTTTAG
CATGATG

B. SEQ ID NO: 259

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCL
VKGFYPSDIAVEWESSGQPENNYNTTPMMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLMTYRRLISMMGFKMNYQVNGYPNMFGGGSSGGGSSHVISTSHKLVLVSNPYVASIKNFKSVLYYQNNVFMGGG
GSGGGGSGYFIKGLNNLNRGMVLYLNTLTLAVPYNMRVGGGSSGGGSSMLSDTLKNLSDRVVFVLAHGFELSGGGGS
GGGGHFAIGLALYPSARIVYTACSHAAGGGGSSGGGSSRSFIEDLLFNKVTALMIERFVSLAIDAYPGGGSSGGGSSR
AMPNMLRIMASLVLMVYPASWVMRIMTWGGGSSGGGSSRVWTLMNVLTVYKVFAYANRNRFLYIIKLSGGGSSGG
GGAQFAPSASAFFGMSRIEIVDTVSALVYDNKLSGGGSSGGGGLNRFITTLNDFNLVAMSSVELKHFFFAQDGNAAISG
GGSGGGGSSGDATTAYANSVFNICQAVTANVNALLSGGGSSGGGTANPKTPKYKFVRIQPGQTFFVNEFYAYLRKH
FSMM

Fig. 27

A. SEQ ID NO: 260

ATGAACTTTGGTCTGCGGCTGATTTTCCTCGTCCTGACTCTCAAGGGCGTCCAGTGCCAGGTCCAGCTCACTCAGAG
CCCCGCCTCTCTGGCAGTGAGCCTGGGGCAGAGAGCTACTATTAGCTGCAGGGCTAGTAAAGCGTGTCAACCAGC
GGTTATTCATACATGCATTGGTATCAGCAGAAACCCGGTCAGCCACCTAAGCTCCTCATCTACCTCACTTCCAACCTG
GAATCTGGTGTGCCAGCACGCTTTTCAGGCTCCGGAAGTGGCAGAGCTTCACCCCTGAATATCCACCCAGTGGAAG
AAGAGGACGCCGCTACATACTATTGTCAGCACAGCCGGGAAGTCCCATGGACTTTTGGTGGGGGCACTAAGCTGGA
GATTAAGAGAGAGGGGGTGGAGGTTCTGGCGGAGGGGGTTCAGGAGGAGGCGGGTCCCAGGTCCAGCTCCAGCAGT
CTGGTCCAGACCTCGTGAAACCTGGTGCTTCAGTCACCATCAGTTGCAAAGCTAGTGGCTATGCTTTCTCAAGTAGC
TGGATGAGCTGGCTCAAACAGCGTCCCGGCAAAGGACTGGAGTGGATTGGGTGGATCTTCCCAAGAGACGGTGAC
ACCAACTATAACGGTAAATTCAAGGGGAAAGCCACTCTGACCGCCGACAAGTCAAGCAGTACAGCTTATATGCAGCT
CAGTAGCCTCACTAGTGAGGACAGCGCCGTGATTTTTGCGCAAGGAGGGGGCGACTATCACTATGGGATGGACTAT
TGGGGACAGGGCACCTCTGTCAACGTGAGTTCTGAGCTGAAAACCCCCCTCGGTGACACTACTCACACCGAACCCA
AATCCTGTGACACCCCTCCCCCTTGCCCTCGCTGTCTGGTGGTGGCAGTTCAGGGGGTGGGAGCGGGGGCCAGC
CTAGAGAGCCACAGGTCTATACACTCCCTCCCTCTAGAGAAGAGATGACCAAAAATCAGGTGTCACTGACATGCCTG
GTCAAGGGTTTCTACCCAAGCGACATTGCAAGTGAATGGGAGTCAAGTGGCCAGCCAGAGAAACAATTATAACACTA
CACCTCCAATGCTCGACAGCGATGGTAGTTTCTTCTCTATTCCAAGCTGACAGTCGACAAATCTAGATGGCAGCAG
GGCAATATCTTCAGTGTTTCAGTGATGCATGAGGCCCTGCACAACCGGTTCACTCAGAAGAGCCTGTCACTCTCCCC
CGGGAAGGGCCTCGGAGGTCTGAGGGTCCAGCCTACTGAATCCATCGTCCGGTTCCCAAATATTACCAACCTCTGC
CCTTTCGGAGAGGTCTTCAATGCCACACGCTTTGCCAGTGTCTATGCCTGGAATCGCAAGAGGATTAGTAACTGCGT
GGCAGACTATAGTGTCTGTACAACCTCAGCTTCTTCTCAACATTCAAATGCTATGGAGTGTACCAACCAAACTCAA
CGATCTGTGCTTCACTAATGTCTATGCTGACTCCTTTGTCAATAGGGGGGATGAGGTCCGCCAGATTGCCCTGGTC
AGACCGGGAAGATTGCCGACTATAACTATAAGCTCCAGATGACTTCACTGGCTGCGTGATCGCCTGGAATAGCAA
CAACCTCGATTCCAAGGTGGGCGGCAATTACAACCTCTATAGACTGTTTCGAAAGAGTAATCTCAAACCATTTGA
GCGGGACATCAGCACAGAAATCTATCAGGCTGGATCTACACCTTGCAACGGCGTCGAAGGGTTCACTGTTACTTCC
CACTCCAGTCTTACGGTTTTTCAGCCCACTAACGGGGTGGGGTACCAGCCCTATCGGGTGGTCTGCTCTGAGTTTCGA
ACTCTGCACGCCCCCGCAACAGTCTGCGGGCCCCAAAAGTCCACTAACCTGGTGAAGAACAAGTGCCTGAACTTC

B. SEQ ID NO: 261

MNFGRLRLFLVLTGKGVQCQVQLTQSPASLAVSLGQRATISCRASKSVSTSGYSYMHYQQKPGQPPKLLIYLTSLNLESG
VPARFSGSGSGDFTLNIHPVEEEDAATYYCQHSRELPTWTFGGGTKLEIKRGGGGSGGGGSGGGGSGVQLQQSGPDL
VKPGASVTISKASGYAFSSSWMSWLKQRPKGLEWIGWIFPRDGDNTNYNGKFKGKATLTADKSSSTAYMQLSSLTSED
SAVYFCARRGDYHYGMDYWGQGTSTVTSSELKTPLGDTHTTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTL
PPSREEMTKNQVSLTCLVKGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMH
EALHNRFTQKSLSLSPGKGLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRRKISNVCADYSVLYNSASFST
FKCYGVSPSTKLNDLCFTNVAADSFVIRGDEVIRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNLDLSDKVGNNYNYLYRLF
RKSNNLKPFRDISTEIYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKN
KCVNF

Fig. 28A. SEQ ID NO: 262

ATGAATTCGCGCCTGAGGCTGATTTTTCTCGTGCTGACTCTGAAAGGAGTGCAAGTGTCAGGTCCAGCTGACTCAGTC
TCCAGCCTCACTGGCCGTGTCACTGGGACAGCGGCCACTATCTCATGCAGGGCCTCTAAAAGCGTGTCAACTAGC
GGATATTCCTACATGCATTGGTACCAGCAGAAACCCGGCCAGCCACCTAAACTGCTCATCTATCTCACATCCAACCT
GGAATCCGGAGTGCCAGCCAGGTTCAAGTGAAGCGGATCCGGTACCGACTTCAACCCTGAATATCCACCCAGTCGAA
GAGGAAGATGCAGCTACATATTACTGCCAGCATTACGGGAACTCCCATGGACCTTTGGAGGCGGGACAAAAGTGG
AAATCAAACGGGGCGGGGGCGGATCTGGAGGCGGGGGAAGCGGGGGCGGAGGTAGTCAGGTCCAGCTCCAGCA
GTCAGGCCCTGACCTCGTCAAGCCCCGGCGCCAGTGTCACAATTAGTTGCAAGGCTTCCGGGTACGCTTTTAGCTCC
TCATGGATGTCCTGGCTCAAGCAGCGCCCTGGCAAAGGCCTCGAATGGATCGGCTGGATCTTCCCAAGGGACGGC
GATACAAACTATAATGGCAAGTTTAAAGGCAAGGCCACTCTCACCGCCGACAAATCTAGCTCTACCCGATATATGCA
GCTCTCTTCCCTGACCTCAGAAGACTCCGCTGTCTATTTCTGCGCCCGAAGGGGAGACTACCACTACGGGATGGATT
ACTGGGGACAGGGCACCAGCGTGACAGTCTCTAGCGAACTCAAGACTCCACTGGGCGATACCACCCATACAGAGCC
TAAGAGTTGTGATACCCACCACCTGCCACGGTGCCCTGGGGGTGGAAGCTCCGGGGCGGTTCCGGTGGACA
GCCTCGTGAACCCAGGTGTACACCCTGCCACCTTACGAGAAGAGATGACAAAGAATCAGGTCTCACTGACCTGT
CTCGTCAAGGGGTTCTACCTTCAGACATTGCAGTGGAGTGGGAGTCAAGCGGACAGCCTGAGAATAACTACAACA
CCACCCCTCCAATGCTGGACTCTGATGGAAGCTTCTTCTGTATAGCAAGCTGACTGTGATAAATCACGCTGGCAG
CAGGGCAATATCTTCAGTTGCTCAGTGATGCACGAAGCTCTGCACAATCGTTTCACTCAGAAATCTCTCTCTGTCC
CCTGGCAAGGGCCTCGGTGGCTGGTCAACCTCACTACAAGGACCCAGCTCCCTCCAGCCTACACTAACTCATTAC
TCGGGGCGTCTACTACCCAGATAAAGTCTTCAGAAGCAGCGTTCTCCATTCTACCCAGGACCTCTTCTGCTTTCTT
TTCAAATGTCACTTGGTTTACGCAATCCACGTCTCCGGGACCAACGGCACAAAACGGTTCGATAATCCAGTTCTCC
CTTTCAATGATGGGGTCTATTTGCTTCTACCGAAAAGTCTAACATCATTCCGGGGTGGATCTTTGGGACTACACTG
GATTTCCAAAACACTCAGTCTCTCCTCATTGTCAATAATGCAACTAATGTTGTTATTAAGGTCTGTGAGTTTCAGTTCTGCA
ATGACCCATTCTGGGGGTCTATTACCACAAGAATAACAAGTCTGGATGGAGTCCGAATTTTCAGTCTATTCCAGC
GCCAATAACTGTACATTGCAATACGTTAGTCAGCCTTTCTGATGGATCTGGAGGGTAAACAGGGCAACTTCAAGAA
CCTGCGCGAGTTTGTGTTTAAAGAATATTGATGGGTATTTCAAGATATACTCCAAGCATACACCTATCAACCTGGTTAG
AGACCTGCCACAGGGTTTTTTCAGCACTGGAACCTCTGGTGCACCTCCCTATTGGAATCAACATCACACGATTCCAGA
CCCTCCTCGCTCTCCACCGTTCAATCTGACCCCCGGCGACAGTAGCTCTGGCTGGACCGCAGGAGCAGCTGCATA
CTATGTCCGGGTACCTGCAGCCTAGGACATTCTGCTGAAAGTACAACGAAAATGGAACAATCACAGATGCTGTGGATT
GTGCACTCGATCCACTGTGAGAGACCAAGTGTACTCTCAAAAGCTTCAACGTCGAAAAGGGGATCTACCAGACTTCA
AATTTTCGGGTGCAGCCAAGTGTATCGTCCGATTTCTAACATCACTAATCTCTGTCCATTTGGCGAGGTGTTT
AACGCTACCCGCTTTGCAAGTGTTTACGCCTGGAACAGGAAGCGGATCTCCAATTGCGTGGCTGATTATTCAGTCTCT
GTACAACAGCGCCAGTTTTTCTACTTTTAAATGCTATGGAGTGAGTCCCACCAAGCTGAATGACCTCTGCTTCACTAA
TGTTTATGCAGATTCAATTTGTGATCCGAGGGGATGAAGTGAGACAGATCGCCCTGGACAGACCGGAAAAATTGCC
GACTATAACTACAAACTCCAGACGATTTTACAGGTTTGCCTTATCGCATGGAACCTCAAAACATCTGGACTCTAAAGTC
GGCGGAAACTATAACTACCTCTACAGGCTCTTTCAGAAAGTCTAACCTGAAACCTTTTTCAGAGGGATATCAGCACAGA
GATATATCAGGCTGGTTCCACACCCTGTAACGGCGTTGAGGGTTTTAATTGTTACTTCCCTCTCCAGTCTTACGGTTT
CCAGCCTACAAATGGAGTGGGTTATCAGCCCTACCGCGTCTGGTGTCTCAGCTTTGAACTGCTCCATGCTCCTGCAA
CTGTTTGTGGTCCCAAAAAGTCCACCAATCTGGTTAAGAACAAGTGTGTGAACCTTAACTTTAATGGGCTGACCGGA
ACAGGCGTCTCACAGAAAGCAACAAAAAATCTCCCTTTCCAGCAGTTCGGTAGGGATATCGCCGATACAACCGA
CGCAGTGAGGGATCCTCAGACACTGGAATCCTGGACATCACACCATGCTCCTTCGGAGGCGTTTCCGTTATCACAC
CAGGAACTAATACCTCCAACAGGTGGCCGTCTCTACCAGGACGTGAACTGTACAGAAAGTGGCCGTGCTATCCA
TGCTGACCAGCTGACCCCCACATGGCGGGTCTACTCAACTGGTTCTAACGTGTTCCAGACAAGGGCTGGCTGTCTC
ATTGGTGCCGAGCAGTGAACAACTCTATGAATGCGACATCCCTATCGGGGCCGGAATTTGCGCTTCATACCAGAC
CCAGACTAATAGTCCCTCCGGAGCCGGCTCTGTGCGATCCCAAGTCAATCATTGCCTATACTATGAGTCTGGGTGCCG
AGAACAGCGTGGCATACTCTAACAATTCAATCGCTATCCCTACAAATTTCACTATTTCTGTGACAACAGAAATCCTGC
CAGTTTCCATGACAAAAACCTCAGTTGACTGCACAATGTACATTTTGTGGAGACTCCACCGAGTGCAGTAATCTCCTG
CTGCAGTACGGTTCTTTTGAAGTCACTCAGCTCAATCGGGCCCTCACCGGTATCGCTGTGCAACAGGATAAAAACTCA
GGAAGTTTTTGCACAGGTGAAACAGATATAAGACACCTCCCATCAAGGACTTTGGTGGCTTCACTTTTCCAGA
TCCTGCCTGATCAAGTAAACCATCTAACGGAGCTTTATTGAAGACCTCTGTTCAACAAAGTGACACTGGCCGAT
GCCGGCTTCATTAAGCAGTATGGAGATTGCCTCGGGGACATCGCAGCCCGGACCTGATCTGTGCTCAGAAGTTTA

Fig. 28A. continued

ACGGTCTGACTGTTCTCCCCCTCTGCTGACTGATGAAATGATTGCACAGTATACAAGCGCCCTCCTCGCAGGCACC
ATCACCTCAGGGTGGACCTTTGGTGCTGGAGCAGCCCTGCAGATCCCTTTGCCATGCAGATGGCCTACAGGTTCA
ATGGAATCGGGGTGACCCAGAATGTGCTCTACGAAAATCAGAACTCATTGCCAATCAGTTTAATTCCGCTATTGGA
AAAAATCCAGGACTCCCTGTCATCCACAGCTAGTGCTCTCGGAAAAGTGCAGGACGTGGTGAACAGAACGCTCAGG
CACTGAACACCCTGGTCAAGCAGCTCTCCAGTAACTTTGGAGCCATCTCTTCAGTCTGAACGACATTCTGTCCCGT
CTCGATCCCCCGAGGCTGAAGTGCAGATTGATCGGCTGATTACAGGGCGGCTGCAGTCCCTGCAGACATACGTGA
CCCAGCAGCTGATCCGCGCCGAGAGATTCTGGGCAAGCGCCAATCTCGCCGCTACCAAGATGTCTGAGTGCCTTCT
GGGGCAGAGTAAACGGGTGGACTTCTGTGGAAGGATACCATCTCATGTCTTTTCTCAGAGTGCCCCCACGGC
GTGGTCTTCTGCATGTCACATACGTCCCTGCTCAGGAAAAGAACTTTACCACAGCACCAGCTATCTGTCATGATGG
CAAAGCCCCATTTTCCACGAGAGGGTGTTCGTTTCTAATGGGACCCACTGGTTTGTGACTCAGAGAACTTTTACG
AACCACAGATTATCACCACCGACAATACTTTCTGTCAGCGGAACTGTGATGTGGTTATCGGAATCGTCAACAATACC
GTGTACGATCCTCTGCAGCCAGAGCTGGACAGCTTCAAGGAAGAACTGGATAAGTACTTTAAGAACCATACTTCACC
CGATGTGGACCTCGGAGATATCTCAGGAATTAATGCATCCGTCGTCAACATCCAGAAGGAGATCGATCGGCTGAAT
GAAGTTGCTAAAAATCTGAACGAATCACTCATTGACCTCCAGGAACTCGGCAAATACGAACAGTACATT

Fig. 28B. SEQ ID NO: 263

MNFGLRLIFLVLTLLKGVQCQVQLTQSPASLAVSLGQRATISCRASKSVSTSGYSYMHWYQQKPGQPPKLLIYLTSLNLESG
VPARFSGSGSGTDFTLNHPVEEEDAATYYCQHSRELPTWFGGGTKLEIKRGGGSGGGGSGGGGSGVQLQQSGPDL
VKPGASVTISCKASGYAFSSSWMSWLKQRPKGLEWIGWIFPRDGTNYNGKFKGKATLTADKSSSTAYMQLSSLTS
EDSAVYFCARRGDYHYGMDYWGQTSVTVSSELKTPLGDTTHTPEKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVY
TLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSV
MHEALHNRFTQKSLSLSPGKGLGGLVNLTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFSNVTWFHAIHV
SGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSTQSLNINATNVVIVKVEFCNDPFLGVYHKNK
SWMESEFRVYSSANNCTFEYVSQPFMDLEGKQGNFKNLREFVFNIDGYFKIYKHTPINLVRDLPGFSALEPLVDLPI
GINITRFQTLALHRSYLPDSSSGWTAGAAAYVGYLQPRTFLLKYNENGTTDAVDCALDPLSETKCTLKSTVEKGI
YQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFT
NVYADSFVIRGDEVRIAPGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNYLRLFRKSNLKPFRDISTEY
QAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKSTNLVKNKCVNFNFGLTGTGVL
TESNKKFLPFQFGRDIADTTDAVRDPQTLEILDITPCSFGGVSVITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPT
WRVYSTGSNVFQTRAGCLIGAHEVNNSYECDIPIGAGICASYQTQTNPSGAGSVASQSIAYTMSLGAENSVAYSNN
IAIPTNFTISVTTEILPVSMKTSVDCTMYICGDSTECNSLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTPP
IKDFGGFNFSQILPDPSKPSKRSFIEDLLFNKVTLDAGFIKQYGDCLGDIARDLCAQKFNGLTVLPPLTDEMIQYTS
ALLAGTITSGWTFGAGAAQIPFAMQMAYRFNGIGVTQNVLYENQKLIANQFNSAIGKIQDSLSTASALGKLQDVVNQ
NAQALNTLVKQLSSNFGAISSVLNDILSRDPPAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLG
QSKRVDFCGKGYHLMSPQSAPHGVVFLHVTYVPAQEKNFTTAPAICHDKAHFPREGVFSNGTHWFTVQRNFYEPQ
IITDNTFVSGNCDVIGVNNVTYDPLQPELDSFKEELDKYFNHTSPDVLGDISGINASVNNIQKEIDRLNEVAKNLN
ESLIDLQELGKYEQYI

Fig. 29

A. SEQ ID NO: 264

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCCC
CAGTGAGGAGTGGGTCCAGAAATACGTCACTGACCTGGAGCTGAGTGCCGAGCTCAAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTGCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACTACAACACCACGCCTCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCACTTTGCCATCGGACTGGCCCTCTACTATCCCTC
TGCCAGAATCGTGACACTGCCTGTAGCCATGCCGCTGTGGGTGGCGGGGGATCAGGTGGCGGAGGGTCCCGAGT
CCAGCCCACAGAATCAATCGTGCGGTTTCCAAACATACCAATCTCTGCCCCCTTCGGAGAAAGTGTAAATGCCACAC
GGTTTGCCTCAGTGTATGCCTGGAACCGGAAGAGAATCTCCAAGTGCCTGGCAGACTATTCTGTGCTGTACAACAG
CGCTCCTTCTCTACTTTCAAGTGCTACGGCGTGTCTCCTACTAAGCTGAACGATCTCTGCTTCACAAACGTGTATGC
CGATTCTTTGTGATCAGAGGAGACGAAGTGCGACAGATTGCTCCTGGACAGACCGGGAAGATTGCCGACTACAAC
TATAAGCTGCCAGACGATTTCACTGGCTGCGTTATTGCCTGGAATTCAAACAACCTCGATTCCAAAGTGGGCGGGAA
TTATAACTACCTCTATAGACTGTTCCGTAAGTCTAACCTGAAGCCATTGAGCGTGATATTAGCACCGAAATCTACCA
GGCAGGTTCAACTCCTTGTAAACGGAGTGGAGGGATTCAACTGCTACTTCCCACTGCAGTCCTATGGGTTCCAGCCTA
CAAACGGAGTGGGGTACCAGCCTTATCGGGTCGTTGTGCTGTCCTTTGAGCTGCTCCACGCTCCTGCAACTGTTTGC
GGACCTAAGAAATCCACCAACCTGGTGAAGAACAAGTGCCTGAATTTT

B. SEQ ID NO: 265

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYPSARIVYTACSHAAVGGGSGGGGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRI
SNCVADYSVLNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWN
SNNLDSKVGGNYNLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFEL
LHAPATVCGPKKSTNLVKNKCVNF

Fig. 30

A. SEQ ID NO: 266

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCAG
AAGAGCCTCTCCCTGTCTCCGGGTAAAGGCCTCGGTGGCCTGTTCTGTAACGAGTTCTACGCCTATCTGAGAAAGC
ACTTCTCCATGATGGGGGGCGGAGGTAGTGGCGGAGGTGGCTCCCGAGTCCAGCCCACAGAATCAATCGTGCGGT
TTCCAAACATCACCAATCTCTGCCCCCTCGGAGAAGTGTTTAAATGCCACACGGTTTGCCTCAGTGTATGCCTGGAAC
CGGAAGAGAATCTCAACTGCGTGGCAGACTATTCTGTGCTGTACAACAGCGCCTCCTTCTCTACTTTCAAGTGCTA
CGGCGTGTCTCTACTAAGCTGAACGATCTCTGCTTCACAAACGTGTATGCCGATTCTTTGTGATCAGAGGAGACG
AAGTGCACAGATTGCTCCTGGACAGACCGGGAAGATTGCCGACTACAACATAAGCTGCCAGACGATTTCACTGG
CTGCGTTATTGCCTGGAATTCAAACAACCTCGATTCCAAAGTGGGCGGGAATTATAACTACCTCTATAGACTGTTCC
GTAAGTCTAACCTGAAGCCATTCGAGCGTGATATTAGCACCGAAATCTACCAGGCAGGTTCAACTCCTTGTAACGGA
GTGGAGGGATTCAACTGCTACTTCCCACTGCAGTCCTATGGGTTCCAGCCTACAAACGGAGTGGGGTACCAGCCTT
ATCGGGTCGTTGTGCTGTCTTTGAGCTGCTCCACGCTCCTGCAACTGTTTGCGGACCTAAGAAATCCACCAACCTG
GTGAAGAACAAGTGCCTGAATTTT

B. SEQ ID NO: 267

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFYSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHLEALHNRFTQKSLSLSPGK
GLGGLFVNEFYAYLRKHFSMMGGGSGGGGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADY
SVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKL PDDFTGCVIAWNSNNLDSK
VGGNYNYLYRLFRKSNLKPFRDISTEIYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATV
CGPKKSTNLVKNKCVNF

Fig. 31

A. SEQ ID NO: 268

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTGCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGCAGCCG
GAGAACTACAACACCACGCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCAG
AAGAGCCTCTCCCTGTCTCCGGTAAAGGCCTCGGTGGCCTGCACTTCGCAATCGGGCTCGCACTGTACTATCCTA
GTGCCAGGATCGTGATACCGCTTGTAGTCACGCAGCTGTGGCGGGCGGAGGTTCTGGCGGTGGGGGATCTTTCG
TGAACGAGTTCTATGCTTACCTGCGCAAACTTCTCCATGATGGGCGGTGGAGGGTCTGGCGGGGGAGGCTCAC
GGGTCCAGCCTACAGAGTCTATTGTGCGGTTTCCCAATATCACCATCTGTGCCATTGGCGAGGTGTTTAACGCA
ACCAGTTTCGCTCTGTCTATGCATGGAATCGGAAGCGGATCAGTAACTGCGTCGCTGATTACTCTGTCTGTATAA
CAGCGCTCTTTCAGCACCTTAAAGTGCTACGGCGTCTCTCCACCAAGCTGAACGACCTGTGCTTCACTAACGTGT
ACGCCGATAGCTTTGTGATCCGGGGCGACGAGGTCCGCCAGATTGCTCCCGGCCAGACCGGAAAGATCGCTGACT
ACAATAACAACTGCCTGACGATTTACCGGTTGCGTGATCGCTTGAATAGTAACAATCTCGACAGCAAAGTCGGC
GGGAATACTAATACTACCTTACCGGCTCTTTAGAAAAGAGCAACCTGAAGCCTTTTGAACGGGATATTAGCACCGAAAT
CTACCAGGCAGGCAGCACCCCTTGCAATGGCGTCGAGGGCTTCAACTGCTATTTCCCACTCCAGTCTTATGGCTTCC
AGCCTACCAATGGCGTGGGATATCAGCCATATCGCGTGGTGGTCTCTCTTTGAGCTCCTGCATGCTCCAGCCACC
GTGTGCGGTCCAAAAAGAGCACTAACCTCGTCAAGAACAAGTGCGTCAACTTT

B. SEQ ID NO: 269

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFYSYTRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPPGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGFFLYSKLTVDKSRWQQGNIFSCVMHEALHNFTQKSLSLSPGK
GLGGLHFAIGLALYPSARIVYTACSHAAVGGGGSGGGGSFVNEFYAYLRKHFSMMGGGGSGGGGSRVQPTESIVRFP
NITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPKLNLDLCTNVYADSFVIRGDEVRI
APGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFRDISTEIQAGSTPCNGVEGFNCY
FPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 32

A. SEQ ID NO: 270

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCCC
CAGTGAGGAGTGGGTCCAGAAATACGTACGTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTGCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGCAGCCG
GAGAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCCTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCACTTCGCCATTGGCCTCGCCCTGTATTACCTTC
TGCCCGGATCGTGTATACAGCATGCTCTACGCTGCAGTGGGGGGCGGTGGCTCCGGCGGTGGCGGAAGCTTTGT
GAACGAGTTCTATGCCTACCTGAGAAAGCACTTCTCTATGATGGGTGGCGGAGGCTCCGGAGGGGGTGGCTCTCTG
GTGAAGCCTTTCTTCTACGTCTACTCCAGAGTGAAGAATCTCGGAGGTGGCGGTTCTGGTGGCGGAGGTTCTAGGG
TCCAGCCAACCGAATCCATCGTGCGATTCCCCAATATCACAAACCTGTGCCCTTTTGGGGAGGTGTTCAATGCTACC
AGATTTGCCTCAGTGACGCATGGAACAGAAAGAGGATTAGTAAGTGCCTGGCCGACTATAGCGTGCTGTATAACA
GCGCCAGCTTCTCTACCTTCAAGTGCTACGGCGTGTCTCTACCAAGCTCAACGATCTCTGCTTACCAACGTGTAT
GCCGATTCTTCGTCAATTAGGGGCGATGAGGTGCGACAGATCGCCCTGGACAGACCGGAAAGATCGCCGATTATA
ACTACAAACTGCCTGATGACTTCACCGGTTGCGTGATCGCCTGGAAGTCCAACAACCTGGACTCCAAGGTGGTGG
CAACTATAATTACCTGTACAGGCTGTTTCAGGAAGTCCAATCTGAAGCCTTTTGAACGAGATATCAGCACCGAAATCTA
CCAGGCCGGATCTACCCCATGCAACGGTGTGGAAGGCTTTAACTGTTACTTCTCTCCAGAGTTATGGCTTCCAGC
CAACCAATGGGGTGGGCTATCAGCCTTATCGAGTGGTCTGCTGTCTTTGAACTCCTGCATGCCCCAGCTACTGTC
TGTGGCCCCAAGAAATCCACCAATCTCGTGAACCAAGTGCCTCAATTC

B. SEQ ID NO: 271

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPCPRCPGGSSGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYYPSARIVYTACSHAAVGGGSGGGGSGVNEFYAYLRKHFSMMGGGSGGGGSLVKPSFYVYSRV
KNLGGGSGGGGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSP
TKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGNNYNYLYRFRKSNLKP
FERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 33

A. SEQ ID NO: 272

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTAGTGACCTGGAGCTGAGTGCCGAGCTCAAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACAACACTAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTCACGCAG
AAGAGCCTCTCCCTGTCTCCGGGTAAAGGCCTCGGTGGCCTGCACTTTGCCATCGGACTGGCCCTGTACTATCCTTC
TGCCAGAATCGGTACACCGCCTGTTCTCATGCCGCTGTGGGTCTGGGCGGACTGCGAGTCCAGCCCACAGAATCA
ATCGTGCGGTTTCAAACATCACCAATCTCTGCCCTTCGGAGAAGTGTTAATGCCACACGGTTTGCCTCAGTGTA
TGCTGGAACCGGAAGAGAATCTCCAAGTGCCTGGCAGACTATTCTGTGCTGTACAACAGCGCCTCCTTCTCTACTT
TCAAGTGCTACGGCGTGTCTCTACTAAGCTGAACGATCTCTGCTTCAAAACGTGTATGCCGATTCTTTGTGATCA
GAGGAGACGAAGTGCAGAGATTGCTCCTGGACAGACCGGGAAGATTGCCGACTACAACATAAGCTGCCAGACG
ATTTCACTGGCTGCGTTATTGCCTGGAATTCAAACAACCTCGATTCCAAAGTGGGCGGGAATTATAACTACCTCTATA
GACTGTTCCGTAAGTCTAACCTGAAGCCATTGAGCGTGATATTAGCACCGAAATCTACCAGGCAGGTTCAACTCCT
TGTAACGGAGTGGAGGGATTCAACTGCTACTTCCCACTGCAGTCCTATGGGTTCAGCCTACAAACGGAGTGGGGT
ACCAGCCTTATCGGGTCTGTTGTGCTGTCCTTTGAGCTGCTCCACGCTCCTGCAACTGTTTGCAGACCTAAGAAATCC
ACCAACCTGGTGAAGAACAAGTGCCTGAATTC

B. SEQ ID NO: 273

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPCPRCPGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHLEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYPSARIVYTACSHAAVGLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVAD
YSVLNYSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDS
KVGGNYNLYRLFRKSNLKPFRDISTEIYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPAT
VCGPKKSTNLVKNKCVNF

Fig. 34

A. SEQ ID NO: 274

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCACTGACCTGGAGCTGAGTGCCGAGCTCAAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTGCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACAACACTAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCACTTCGCCATTGGCCTGGCCCTGTACTATCCCTC
CGCCAGAATCGTGTACACCGCTTGTAGTCACGCCGCAGTGGGGCTCGGAGGCCTGGGTCTCGGCGGACTGCGAGT
CCAGCCCACAGAATCAATCGTGCCTGGAACCGGAAGAGAATCTCAACTGCGTGGCAGACTATTCTGTGCTGTACAACAG
GGTTTGCCTCAGTGTATGCCTGGAACCGGAAGAGAATCTCAACTGCGTGGCAGACTATTCTGTGCTGTACAACAG
CGCCTCCTTCTCTACTTTCAAGTGCTACGGCGTGTCTCCTACTAAGCTGAACGATCTCTGCTTCACAAACGTGTATGC
CGATTCTTTGTGATCAGAGGAGACGAAGTGCGACAGATTGCTCCTGGACAGACCGGGAAGATTGCCGACTACAAC
TATAAGCTGCCAGACGATTTCACTGGCTGCGTTATTGCCTGGAATTCAAACAACCTCGATTCCAAAGTGGGCGGGAA
TTATAACTACCTCTATAGACTGTTCCGTAAGTCTAACCTGAAGCCATTGAGCGTGATATTAGCACCGAAATCTACCA
GGCAGGTTCAACTCCTTGTAAACGGAGTGGAGGGATTCAACTGCTACTTCCCACTGCAGTCCTATGGGTTCCAGCCTA
CAAACGGAGTGGGGTACCAGCCTTATCGGGTCGTTGTGCTGTCCTTTGAGCTGCTCCACGCTCCTGCAACTGTTTGC
GGACCTAAGAAATCCACCAACCTGGTGAAGAACAAGTGCCTGAATTTT

B. SEQ ID NO: 275

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPGLDTHTEPKSCDTPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYPSARIVYTACSHAAVGLGGLGLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNKRIS
NCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLDDFTGCVIAWNS
NNLDSKVGNNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELL
HAPATVCGPKKSTNLVKNKCVNF

Fig. 35

A. SEQ ID NO: 276

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCAGTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGCAGCCG
GAGAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGTTCTGTAACGAGTTCTACGCCTATCTGAGAAAGC
ACTTCAGCATGATGGGACTGGGCGGTCTGCGAGTCCAGCCACAGAATCAATCGTGCGGTTTCCAAACATACCAA
TCTCTGCCCTTCGGAGAAGTGTTAATGCCACACGGTTTGCCTCAGTGTATGCCTGGAACCGGAAGAGAATCTCCA
ACTGCGTGGCAGACTATTCTGTGCTGTACAACAGCGCTCCTTCTCTACTTTCAAGTGCTACGGCGTGTCTCCTACTA
AGCTGAACGATCTCTGCTTCAAAACGTGTATGCCGATTCTTTGTGATCAGAGGAGACGAAGTGCGACAGATTGCT
CCTGGACAGACCGGGAAGATTGCCGACTACAACTATAAGCTGCCAGACGATTTCACTGGCTGCGTTATTGCCTGGA
ATTCAAACAACCTCGATTCCAAAGTGGGCGGGAATTATAACTACCTCTATAGACTGTTCCGTAAGTCTAACCTGAAGC
CATTGAGCGTGATATTAGCACCGAAATCTACCAGGCAGGTTCAACTCCTTGTAACGGAGTGGAGGGATTCAACTGC
TACTTCCCACTGCAGTCTATGGGTTCCAGCCTACAAACGGAGTGGGGTACCAGCCTTATCGGGTCGTTGTGCTGTC
CTTTGAGCTGCTCCACGCTCCTGCAACTGTTTGCGGACCTAAGAAATCCACCAACCTGGTGAAGAACAAGTGCGTGA
ATTC

B. SEQ ID NO: 277

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPCPRCPGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHLEHNRFTQKSLSLSPGK
GLGGLFVNEFYAYLRKHFSMMGLGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRRKISNCVADYSVLYNSA
SFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGNGYNY
LYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTN
LVKNKCVNF

Fig. 36

A. SEQ ID NO: 278

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTAGTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGAGACACACCTCCCCCGTGCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCATTTTGCCATTGGACTGGCACTCTATTACCCAAG
TGCCAGGATCGTCTACACTGCCTGCAGTCACGCAGCCGTCGGGGGAGGCGGTTCTGGAGGGGGTGGCTCTTTCTG
GAACGAGTTTTACGCCTACCTGAGGAAGCACTTTAGCATGATGGGCCTCGGGGGTCTCCGCGTGCAGCCAACAGAA
TCCATTGTCCGCTTCCCAATATTACAAACCTGTGCCATTTCGGAGAAGTGTTAATGCCACCAGATTCCGCTCCGTG
TATGCTTGGAACAGAAAGCGCATCTCTAACTGCGTCGCCGACTACAGTGTGCTGTACAACAGCGCAAGTTTTTCCAC
ATTCAAGTGTTATGGGGTGTACCAACCAAACTGAACGATCTCTGCTTCAAAACGTGTACGCCGACTCCTTCGTCA
TCCGCGGCGACGAAGTGAGACAGATCGCACCCGGGCAGACTGGAAAGATCGCAGACTATAACTACAAGCTGCCAG
ACGATTTACCCGGGTGCGTCATTGCCTGGAACAGCAATAACCTCGACAGCAAAGTGGGGGGCAATTACAATATCT
GTATAGACTGTTCCGCAAGTCCAACCTGAAACCCTTTGAGAGAGACATCAGTACAGAAATCTATCAGGCCGGTTCTA
CACCATGTAATGGTGTGCAAGGGTTCAACTGCTACTTCCCTCTGCAGTCATATGGCTTCCAGCCAATAATGGGGTG
GGATACCAGCCTTATAGGGTGGTCGTGCTGAGCTTTGAGCTGCTGCACGCACCCGCCACCGTGTGCGGGCCAAAAA
AGTCCACTAACCTGGTGAAGAACAAGTGCCTCAATTC

B. SEQ ID NO: 279

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFYSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRTQKSLSLSPGK
GLGGLHFAIGLALYPSARIVYTACSHAAVGGGGSGGGGSFVNEFYAYLRKHFSMMGLGLRVQPTESIVRFPNITNLCP
FGEVFNATRFASVYAWNRKRISNCVADYSVLNYSASFSTFKCYGVSPKLNLCFTNVYADSFVIRGDEVQRQIAPGQTG
KIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYG
FQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 37

A. SEQ ID NO: 280

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCACTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCGTGCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGCAGCCG
GAGAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCAG
AAGAGCCTCTCCCTGTCTCCGGTAAAGGCCTCGGTGGCCTGCACTTCGCAATCGGACTCGCACTGTATTACCCCTC
AGCCAGGATCGTGTATACTGCATGCAGTCACGCTGCCGTGGCGGGGGGTAGTGGGGGAGGCGGATCCTTTGT
GAATGAGTTCTATGCCTACCTGAGAAAGCACTTCAGCATGATGGGCGGTGGGGGAAGCGGCGGTGGAGGATCCCT
CGTGAAACCCCTCTTCTATGTCTACTCACGGGTGAAGAACCTGGGCCTCGGAGGTCTCAGAGTCCAGCCTACCGAG
TCTATCGTGAGGTTTCCAAACATCACTAATCTGTGCCCTTTCGGAGAAGTGTTAACGCCACCCGTTTGCCTCAGT
GTACGCTTGAATAGGAAGCGGATCTCAAATTGCGTGGCAGATTACAGCGTGCTGTACAACCTCCGCCTCATTAGTA
CATTCAAGTGCTATGGCGTGAGCCCAACCAAGCTGAACGATCTGTGCTTCACAAACGTGTACGCAGATTCCTTCGTC
ATCAGAGGGGATGAAGTCAGACAGATCGCTCCAGGCCAGACAGGAAAGATCGCAGATTATAATTATAAACTCCCTG
ACGATTTACCCGATGCGTGATCGCTGGAACAGTAATAACCTGGATTCAAAAGTGGGCGGTAATAATTACCTG
TACAGACTGTTTCAAGAGCAACCTGAAGCCATTTGAACGCGACATTTCCACCGAAATCTACCAGGCAGGAAGCA
CACCTGTAAATGGCGTGAGGGCTTTAACTGCTATTTCCCCCTGCAGTCTATGGTTTTAGCCACAAATGGGGTG
GGGTACCAGCCCTACCGGGTCTGGTGCTGAGCTTCGAACCTCTGCACGCACCAAGCCACTGTCTGTGGACCAAGA
AATCCAATAACCTCGTGAAGAACAAGTGCCTGAACCTC

B. SEQ ID NO: 281

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFYSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLDGDTTHTEPKSCDTPPPCPRCPPGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYPSARIVYTACSHAAVGGGGSGGGGSFVNEFYAYLRKHFSMMGGGGSGGGGSLVKPSFYVYSRV
KNLGLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNDL
CFTNVYADSFVIRGDEVRIAPGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGNGYNYLYRLFRKSNLKPFRDIST
EIYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 38

A. SEQ ID NO: 282

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCACTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCACTTCGCTATCGGACTGGCCCTCTACTATCCTTC
CGCTCGGATTGTCTACACTGCCTGCAGCCATGCTGCAGTGACCCAGAAATCACTGAGCCTCAGCCCTGGCAAAGGT
CTGGGAGGCCTCAGAGTCCAGCCTACTGAGAGCATCGTGCGCTTCCCAAACATCACAAACCTGTGCCCTTTGGAG
AAGTCTTCAATGCCACTCGGTTTGCTTCAGTCTATGCTTGAATAGGAAGCGGATTAGCAATTGCGTGGCCGACTAC
TCAGTGCTGTACAATAGCGCAAGTTTCAGCACCTTCAAGTGCTATGGAGTCTCCCCAACCAAACTCAATGACCTGTG
CTTCACCAACGTGTACGCTGATAGCTTTGTGATCAGAGGTGACGAAGTGCGCCAGATTGCCCTGGTCAGACCGGA
AAGATTGCCGACTACAATTACAACTGCCAGACGATTTACAGGATGCGTGATCGCTTGAATAGCAACAACCTGGA
CTCTAAAGTGGGGGGCAACTACAATTACCTGTACCGGCTCTTCGCAAGTCTAACCTGAAGCCTTTTGAGAGAGACA
TTAGCACCGAAATCTACCAGGCTGGAAGCACACCATGCAACGGAGTGGAGGGCTTCAATTGCTACTTCCCTCTCCA
GAGCTATGGTTTTAGCCCACTAACGGTGTCGGTTACCAGCCATACAGAGTGGTCGTGCTGCTATTTGAGCTGCTCC
ATGCCCCCGCTACAGTCTGTGGACCTAAAAAGAGCACCAATCTGGTGAAGAACAATGCGTCAACTTC

B. SEQ ID NO: 283

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPGLDTHTEPKSCDTPPCPRCPGGSSGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSGFFLYSKLTVDKSRWQQGNIFSCSVMHLEHNRFTQKSLSLSPGK
GLGGLHFAIGLALYPSARIVYTACSHAAVTQKSLSLSPGKGLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAW
NRKRISNCVADYSVLNYSASFSTFKCYGVSPKLNLDLFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCV
IAWNSNNLDSKVGNGNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVV
LSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 39

A. SEQ ID NO: 284

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTACGTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACTACAACACCACGCCTCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCCTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAAGGCCTCGGTGGCCTGCATTCGCCATTGGTCTGGCACTCTACTACCCATC
AGCCAGAATCGTGACACCGCCTGCTCCCATGCTGCAGTGGGTGGAGGGGAAGCGGAGGCGGGGGATCTTTCGT
CAACGAATTCTACGCCTACCTGCGGAAGCACTTACAGCATGATGGGCGGCGGGGGCAGCGGAGGGGGTGGGTCACT
CGTGAAGCCAAGCTTCTACGTCTACTCTAGAGTGAAGAACCTGACCCAGAAGTCACTGTCCCTGTCACCTGGCAAG
GGTCTCGGAGGCCTCAGGGTGACGCCAACCAGAAAGCATTGTGCGATTTCCCAACATCACTAATCTCTGTCCCTTGG
CGAAGTGTTCAACGCAACCCGTTTGCATCAGTGTATGCCTGGAATCGGAAGAGGATCTCCAAGTGCCTGGCCGAT
TACAGCGTGCTGTATAATTCAGCCAGCTTCTCCACTTTCAAGTGCTACGGGTCTCTCCTACCAAACCTCAACGACCTC
TGCTTTACCAATGTCTACGCTGACAGCTTTGTGATCCGGGGCGATGAAGTCCGGCAGATTGCACCAGGACAGACCG
GGAAAATCGCCGATTACAATAAGCTGCCCAGCATTTACAGGCTGCGTGATCGCCTGGAATTCTAACAATCTG
GATAGCAAGGTGGGCGGAAATTACAATACTGTACCGACTGTTCCGGAAGTCAAATCTGAAGCCCTTTGAACGGG
ATATCTCCACCGAAATCTATCAGGCCGGAAGTACTCCCTGCAACGGGGTGGAAAGGTTCAACTGTTACTTTCCCTC
CAGTCTTACGGATTCCAGCCTACCAACGGAGTGGGCTACCAACCCATAGAGTGGTCTGCTGCTCTTTGAGCTGCT
GCACGCCCCAGCTACAGTGTGCGGCCCTAAGAAGTCAACCAACCTCGTGAAAAATAAGTGCGTCAATTTT

B. SEQ ID NO: 285

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPPGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYYPSARIVYTACSHAAVGGGSGGGGSGVNEFYAYLRKHFSMMGGGSGGGGSLVKPSFYVYSRV
KNLTQKSLSLSPGKGLGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKC
YGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGNGYNYLYRLFRK
SNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKC
VNF

Fig. 40

A. SEQ ID NO: 286

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTAACCAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTAGTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTGCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGCAGCCG
GAGAACAACTACAACACCACGCCTCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGG
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCACTTTGCCATCGGCCTGGCCCTGTACTATCCCTC
TGCCAGAATCGTGACACTGCCTGCTCTCATGCTGCCGTGAGCCTGTCTCTGAGCCCTGGCAAAGGACTGGGTGGC
CTCCGAGTCCAGCCACAGAATCAATCGTGCGTTTCCAAACATCACCAATCTCTGCCCTTCCGAGAAGTGTTAA
TGCCACACGGTTTGCCTCAGTGTATGCCTGGAACCGGAAGAGAATCTCCAAGTGGTGGCAGACTATTCTGTGCTGT
ACAACAGCGCCTCCTTCTCTACTTTCAAGTGCTACGGCGTGTCTCCTACTAAGCTGAACGATCTCTGCTTCACAAACG
TGTATGCCGATTCTTTGTGATCAGAGGAGACGAAGTGCACAGATTGCTCCTGGACAGACCGGGAAGATTGCCGA
CTACAATAAGCTGCCAGACGATTTCACTGGCTGCGTTATTGCCTGGAATTCAAACAACCTCGATTCCAAAGTGG
GCGGGAATTATAACTACCTCTATAGACTGTTCCGTAAGTCTAACCTGAAGCCATTCGAGCGTGATATTAGCACCGAA
ATCTACCAGGCAGGTTCAACTCCTTGTAACGGAGTGGAGGGATTCAACTGCTACTTCCCACTGCAGTCCTATGGGT
CCAGCCTACAAACGAGTGGGGTACCAGCCTTATCGGGTCTGTGTCTTGTGCTGTCTTTGAGCTGCTCCACGCTCTGCA
ACTGTTTGCGGACCTAAGAAATCCACCAACCTGGTGAAGAACAAGTGCCTGAATTTT

B. SEQ ID NO: 287

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYYPSARIVYTACSHAAVSLSLSPGKGLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRR
RISNCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLDDFTGCVIAW
NSNNLDSKVGNNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCFYPLQSYGFQPTNGVGYQPYRVVLSFE
LLHAPATVCGPKKSTNLVKNKCVNF

Fig. 41

A. SEQ ID NO: 288

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTAGTGACCTGGAGCTGAGTGCCGAGCTCAAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGCAGCCG
GAGAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCCTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAAGGCCTCGGTGGCCTGCACTTCGCCATTGGGCTGGCTCTGTATTACCCCTC
AGCCAGAATCGTCTATACCGCATGCTCCCATGCAGCTGTCGGGGGTGGCGGTAGTGGGGGGGGCGGTAGCTTCGT
CAATGAGTTCTACGCCTACCTGAGGAAACATTTCTCCATGATGGGTGGCGGGGGAAGTGGCGGGGTGGCAGTCT
GGTGAAGCCCTCCTTCTACGTGTATTCTCGAGTGAAGAATCTCTCCCTCAGTCTGTCCCCTGGCAAAGGTCTGGGGG
GCCTCAGGGTGCAGCCCCACGAGTCCATCGTCAGGTTCCCAACATCACAACCTGTGCCCTTTGGGGAGGTCTT
CAACGCCACTCGCTTTGCTTCTGTCTACGCTTGAACAGGAAGCAATCAGTAAGTGCCTCGCCGATTACTCCGTGC
TGTATAATTCCGCCTCATTACGACCTTCAAGTGCTACGGCGTGTCTCTACCAAGCTCAACGATCTCTGCTTACCA
ATGTCTACGCAGACAGTTTCGTGATCAGAGGCGATGAGGTCCGCCAGATTGCCCCAGGGCAGACCGGAAAAATCGC
CGACTATAATTACAAGCTGCCTGATGACTTCACCGGGTGCCTGATCGCATGGAATCCAACAACCTCGACTCCAAAG
TGGGAGGGAACATACTATCTGTACCGCTGTTAGAAAGAGCAACCTGAAACCTTTTGAGAGGGATATCTCAACT
GAAATCTATCAGGCCGGGTCCACCCATGTAATGGGGTGAAGGGTTCAACTGCTATTTCCCTCTGCAGTCCTACG
GGTTCAGCCTACCAATGGAGTCGGCTACCAGCCCTACAGAGTCGTGGTGTCTTTTGAACCTCTGCACGCCCC
TGCCACCGTCTGCGGCCCAAAGAAATCCACCAATCTGGTGAAAAATAAGTGCGTCAACTTT

B. SEQ ID NO: 289

MQVSTAALAVLLCTMALCNQVLSAPLAADPTACCFYSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGSSGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYYPSARIVYTACSHAAVGGGSGGGGSGFVNEFYAYLRKHFSMMGGGSGGGGSLVKPSFYVYSRV
KNLSLSLSPGKGLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGV
SPTKLNLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGNNYNYLRLFRKSNL
KPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 42

A. SEQ ID NO: 290

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCACTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGCAGCCG
GAGAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCACTTTGCAATCGGACTCGCCCTGTACTACCCTA
GCGCCAGGATTGTCTATACCGCATGCAGCCACGCCGCTGTGGGGGGAGGCGGTAGCGGGGGAGGCGGTAGTTTT
GTCAACGAGTTCTACGCATATCTGCGGAAGCACTTCAGCATGATGGGAGGGGGTGGCAGCGGAGGGGGAGGTTCT
CTGGTCAAGCCTAGCTTTTACGTGTACAGTCGAGTCAAGAACCTCGGTGGATCAGCCGGTGGGTGAGGATCTGGCT
CTAGCGGTGGAAGCAGTGGTGCATCTGGAACCGGTACAGCTGGCGGTACTGGATCTGGAAGCGGGACCGGAAGCG
GGAGAGTGCAGCCACAGAGTCAATCGTGCGGTTTCTAACATCACAACCTCTGCCCATTTGGGGAGGTGTTCAA
CGCCACCAGGTTTGCTTCCGTCTATGCCTGGAATAGGAAGCGCATTAGCAATTGCGTGGCCGACTATTCACTGCTGT
ACAATCTGCTTCTTACGACATTCAAGTGTACGGCGTGAGCCCCACCAAGCTCAATGACCTGTGCTTTACCAAC
GTGTATGCCGACTCTTTCGTGATCAGGGGGGACGAGGTCCGACAGATTGCCCTGGCCAGACAGGGAAGATTGCT
GACTATAACTACAACTGCCGACGATTTCACTGGCTGCGTCATCGCATGGAACAGCAACAATCTGGACAGCAAAGT
GGGCGGGAATTACAATTACCTGTATAGGCTCTTCCGCAAAAGTAATCTGAAGCCCTTCGAGAGGGATATCAGCACTG
AAATCTATCAGGCCGGCTCAACTCCTTGCAATGGAGTGAAGGGTTCAACTGCTATTTCCCTCTGCAGAGCTATGGT
TTTCAGCCCACTAACGGGGTGGGATATCAGCCATATCGGGTCGTGGTGTGATTGAGCTGCTGCATGCACCTG
CCACAGTGTGCGGACCTAAGAAGAGCACTAACCTGGTCAAGAACAAGTGCCTGAATTTT

B. SEQ ID NO: 291

MQVSTAALAVLLCTMALCNQVLSAPLAADTPACCFSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPPGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYYPSARIVYTACSHAAVGGGGSGGGGSFVNEFYAYLRKHFSMMGGGGSGGGGSLVKPSFYVYSRV
KNLGGSSAGSGSGSSGSSGASGTGTAGGTGSGSGTSGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRRK
RISNCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLDDFTGCVIAW
NSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFE
LLHAPATVCGPKKSTNLVKNKCVNF

Fig. 43

A. SEQ ID NO: 292

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTAGTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTGCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGCAGCCG
GAGAACAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCATTTGCTATTGGCCTGGCTCTCTACTACCCAAG
CGCAAGGATTGTCTACACCGCCTGTAGCCATGCAGCCGTCGGTGGGGCGGGAGTGGGGCGGCGGGAGCTTTG
TGAACGAATTCTACGCCTATCTGAGGAAGCACTTTAGCATGATGGGCGGCGGGGAAGCGGCGGGGGGATCCC
TGGTCAAACCTAGCTTTTACGTGTACTCACGGGTCAAGAATCTGGGCGGGTCTGGAGGGGGCTCCGAAGGTGGAG
GGAGCGAGGGAGGCGGGAGCGAAGGGGGCGGGTCCGAGGGTGGGGGCAGCGAGGGAGGGGGCAGCGGCGGC
GGAAGTAGGGTCCAGCCACAGAGTCCATTGTGAGGTTCCCAAACATCACCAATCTCTGCCCTTTCGGCGAAGTCTT
CAACGCCACTAGTTTGCCAGTGTCTACGCTTGAATAGAAAGCGCATTAGCAACTGCGTGGCCGATTACTCCGTCC
TGTACAATAGCGCCAGCTTTTCCACCTTCAAGTGCTACGGAGTGAGCCCTACCAAGCTGAACGACCTCTGTTTCACA
AACGTGTACGCCGATAGCTTCGTGATTAGAGGAGACGAGGTGCGGCAGATTGCCCTGGGCAGACCGGCAAGATC
GCCGACTACAATTACAAGCTGCCCGACGACTTTACCGGCTGCGTCATCGCCTGGAATAGCAACAACCTCGACAGTAA
AGTGGGGGGCAATTATAACTACCTCTATAGACTGTTCCGAAAGAGCAATCTGAAGCCATTTGAGCGGGATATCAGCA
CCGAAATCTACCAGGCTGGAAGCACCCCATGCAACGGGGTGAAGGGTTCAACTGCTACTTTCCACTGCAGAGCTA
CGGCTTCCAGCCCACTAATGGAGTGGGCTATCAGCCCTATAGAGTGGTGGTCCTCAGCTTCGAACTGCTGCATGCT
CCCGCCACCGTGTGCGGGCCTAAGAAATCCACCAATCTGGTGAAGAACAAAGTGCCTGAATTTTC

B. SEQ ID NO: 293

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFYSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPPGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLHFAIGLALYYPSARIVYTACSHAAVGGGGSGGGGSFVNEFYAYLRKHFSMMGGGGSGGGGSLVKPSFYVYSRV
KNLGGSGGGSEGGGSEGGGSEGGGSEGGGSEGGGSGGGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNR
KRISNCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLDDFTGCVIA
WNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLS
FELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 44

A. SEQ ID NO: 294

ATGCAGGTCTCCACTGCTGCCCTTGCCGTCCTCTCTGCACCATGGCTCTCTGCAACCAGGTCTCTCTGCACCACT
TGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGACAGATTCCACAGAATTTTCATAGCTGACTACT
TTGAGACGAGCAGCCAGTGCTCCAAGCCCAGTGTCATCTTCTTAACCAAGAGAGGCCGGCAGGTCTGTGCTGACCC
CAGTGAGGAGTGGGTCCAGAAATACGTCACTGACCTGGAGCTGAGTGCCGAGCTCAAACCCCACTTGGTGACACA
ACTCACACAGAGCCCAAATCTTGACACACCTCCCCCGTGCCCAAGGTGCCAGGCGGTGGAAGCAGCGGAGGT
GGAAGTGGAGGACAGCCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGAGGAGATGACCAAGAACCAG
GTCAGCCTGACCTGCTGGTCAAAGGCTTCTACCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGCAGCCG
GAGAACAATAACACACCGCTCCCATGCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGGA
CAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCTTACGCGAG
AAGAGCCTCTCCCTGTCTCCGGGTAAGGCCTCGGTGGCCTGCGAGTCCAGCCACAGAATCAATCGTGCGGTTTC
CAAACATCACCAATCTCTGCCCTTCGGAGAAGTGTTAATGCCACACGGTTTGCCTCAGTGTATGCCTGGAACCGG
AAGAGAATCTCCAATGCGTGGCAGACTATTCTGTGCTGTACAACAGCGCTCCTTCTACTTTCAAGTGCTACGG
CGTGTCTCTACTAAGCTGAACGATCTCTGCTTCAAAACGTGTATGCCGATTCTTTGTGATCAGAGGAGACGAAG
TGCGACAGATTGCTCCTGGACAGACCGGGAACATTGCCGACTACAATAAGCTGCCAGACGATTTCCTGAGTGGTG
CGTTATTGCTGGAATTCAAACAACCTCGATTCCAAAGTGGGCGGGAATTATAACTACCTCTATAGACTGTTCCGTAA
GTCTAACCTGAAGCCATTCGAGCGTGATATTAGCACCGAAATCTACCAGGCAGGTTCAACTCCTTGTAACGGAGTGA
AGGGATTCACTGCTACTTCCCACTGCAGTCTATGGGTTCCAGCCTACATATGGAGTGGGGTACCAGCCTTATCGG
GTCGTTGTGCTGCTCTTTGAGTGTCTCCAGCTCTGCAACTGTTGCGGACCTAAGAAATCCACCAACCTGGTGAA
GAACAAGTGCCTGAATTC

B. SEQ ID NO: 295

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPGLDTHTEPKSCDTPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHLEHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFRDISTEY
QAGSTPCNGVKGFNCFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 45

SEQ ID NO: 296

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPGLDTHTEPKSCDTPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHLEHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFRDISTEY
QAGSTPCNGVEGFNCFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFGGSGGGSEGG
GSEGGGSEGGGSEGGGSEGGGSGGGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYN
SASFSTFKCYGVSPTKLNLCFTNVYADSFVIRGDEVQRQIAPGQTGNIADYNYKLDDFTGCVIAWNSNNLDSKVGGNY
NYLYRLFRKSNLKPFRDISTEYQAGSTPCNGVKGFNCFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKS
TNLVKNKCVNF

Fig. 46

SEQ ID NO: 297

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYYLYRLFRKSNLKPFERDISTEY
QAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFGGSAGGSGSG
SSGSSGASGTGTAGGTGSGSGTSGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYN
SASFSTFKCYGVSPTKLNLCFTNVYADSFVIRGDEVQRQIAPGQTGNIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNY
NYLYRLFRKSNLKPFERDISTEYQAGSTPCNGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKS
TNLVKNKCVNF

Fig. 47

SEQ ID NO: 298

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYYLYRLFRKSNLKPFERDISTEY
QAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGNIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYYLYRLFRKSNLKPFERDISTEY
QAGSTPCNGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 48

SEQ ID NO: 299

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYYLYRLFRKSNLKPFERDISTEY
QAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFSLSLSPGKGLG
GLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFTNVYA
DSFVIRGDEVQRQIAPGQTGNIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYYLYRLFRKSNLKPFERDISTEYQAGS
TPCNGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF

Fig. 49

SEQ ID NO: 300

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGNIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEY
QAGSTPCNGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFGGSGGGSEGG
GSEGGGSEGGGSEGGGSEGGGSGGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYN
SASFSTFKCYGVSPTKLNLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNY
NYLYRLFRKSNLKPFERDISTEYQAGSTPCNGVEGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKK
TNLVKNKCVNF

Fig. 50

SEQ ID NO: 301

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGNIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEY
QAGSTPCNGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFGGSAGGSGSG
SSGGSSGASGTGTAGGTGSGSGTGSGRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYN
SASFSTFKCYGVSPTKLNLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNY
NYLYRLFRKSNLKPFERDISTEYQAGSTPCNGVEGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKK
TNLVKNKCVNF

Fig. 51

SEQ ID NO: 302

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLCFT
NVYADSFVIRGDEVQRQIAPGQTGNIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEY
QAGSTPCNGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFGGSGGGSEGG
GSEGGGSEGGGSEGGGSEGGGSGGSRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYN
SASFSTFKCYGVSPTKLNLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNY
NYRYRLFRKSNLKPFERDISTEYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKK
STNLVKNKCVNF

Fig. 52

SEQ ID NO: 303

MQVSTAALAVLLCTMALCNQVLSAPLAADTPTACCFSYTSRQIPQNFADYFETSSQCSKPSVIFLTRGRQVCADPSEE
WVQKYVSDLELSAELKTPLGDTTHTEPKSCDTPPPCPRCPGGGSSGGGSGGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMHEALHNRFTQKSLSLSPGK
GLGGLRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLDLCFT
NVYADSFVIRGDEVQRQIAPGQTGNIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFRDISTEIY
QAGSTPCNGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFGGSAGGSGSG
SSGGSSGASGTGTAGGTGSGSGTGSGRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYN
SASFSTFKCYGVSPTKLDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGGNY
NYRYRLFRKSNLKPFRDISTEIYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKK
STNLVKNKCVNF

Fig. 53A.

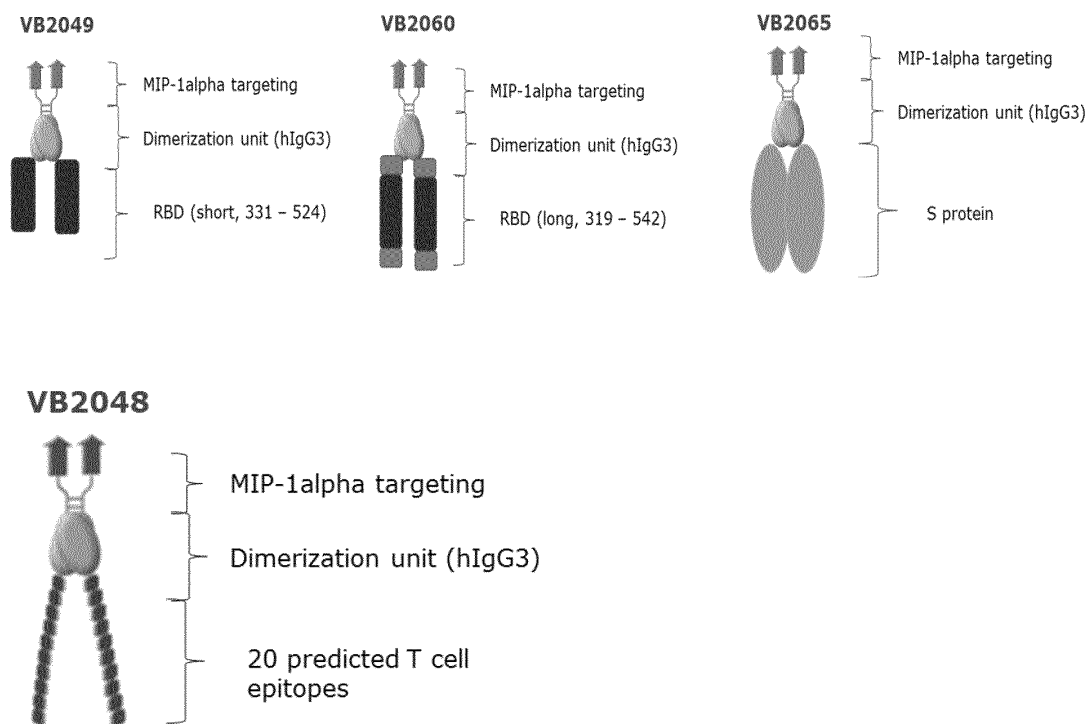


Fig. 53B.

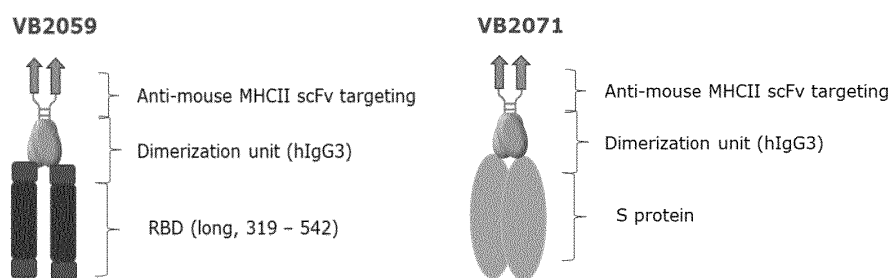


Fig. 53C.

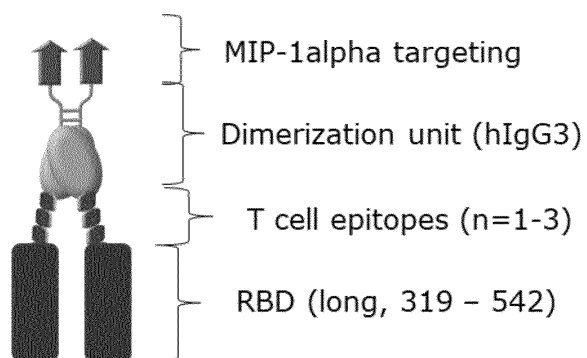
VB2081-VB2099

Fig. 53D.

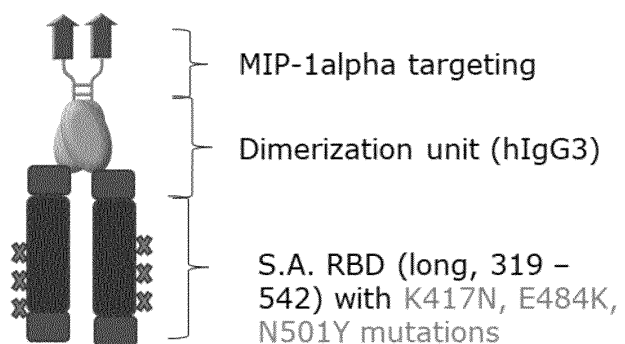
VB2129

Fig. 53E.

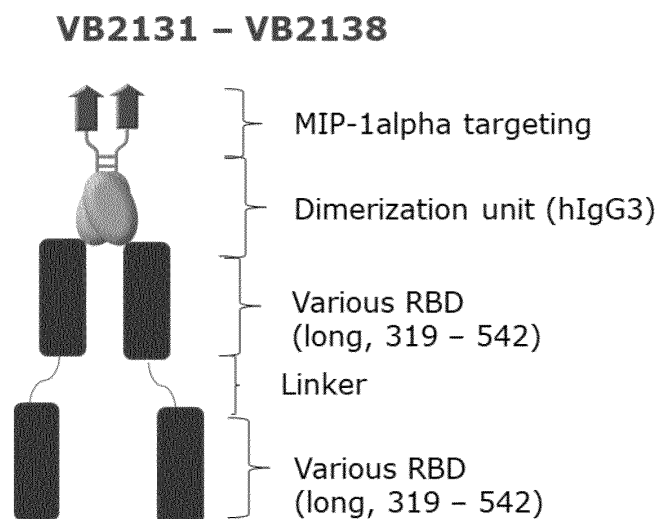


Fig. 54

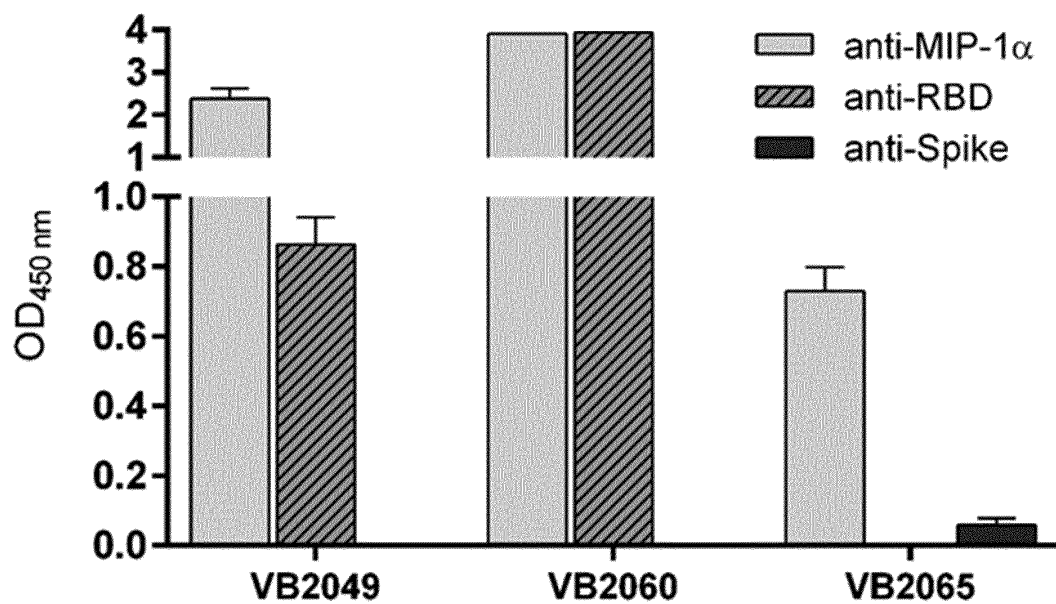


Fig. 55A.

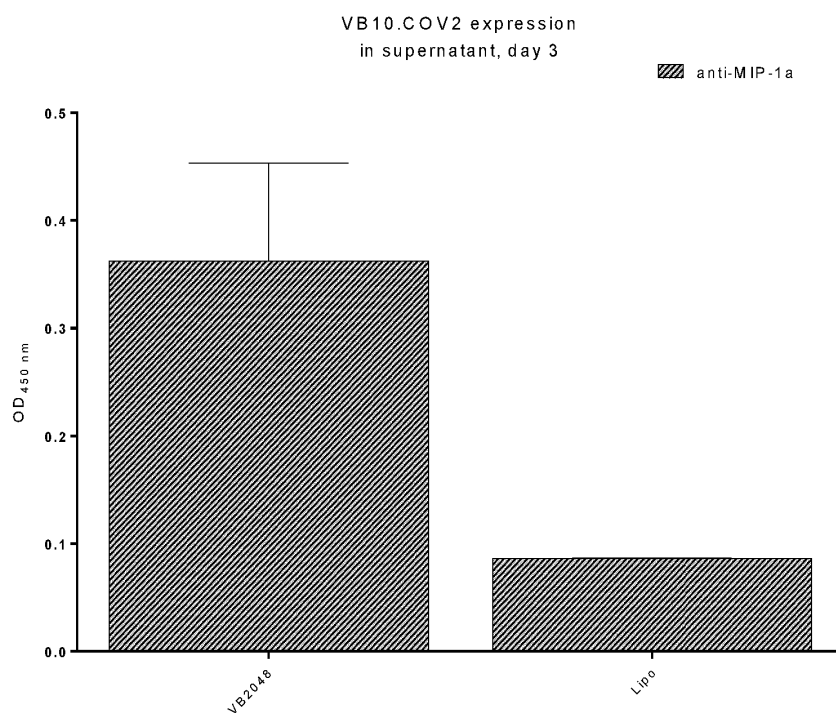


Fig. 55B.

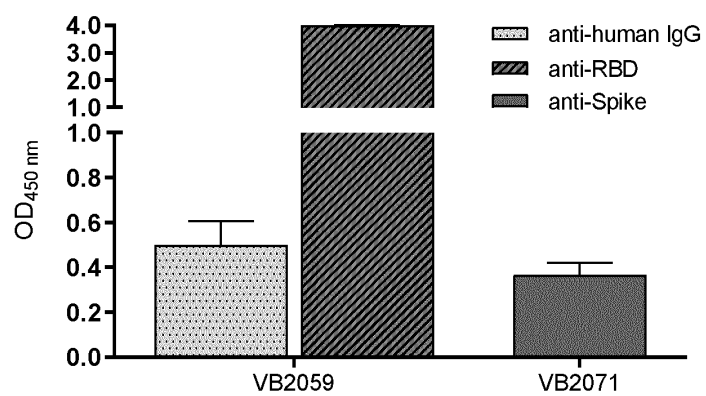


Fig. 55C.

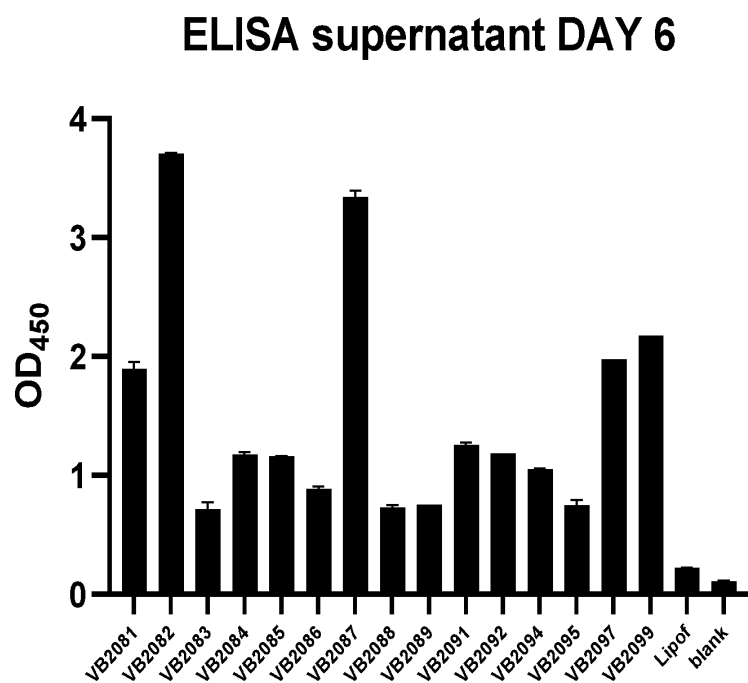


Fig. 55D.

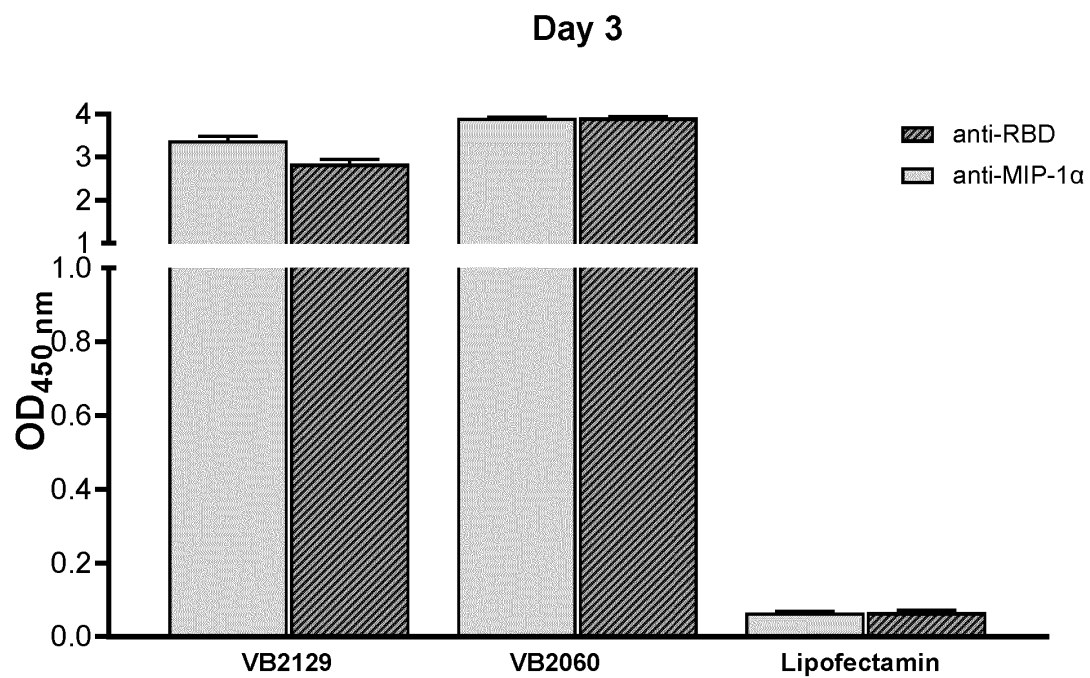


Fig. 55E.

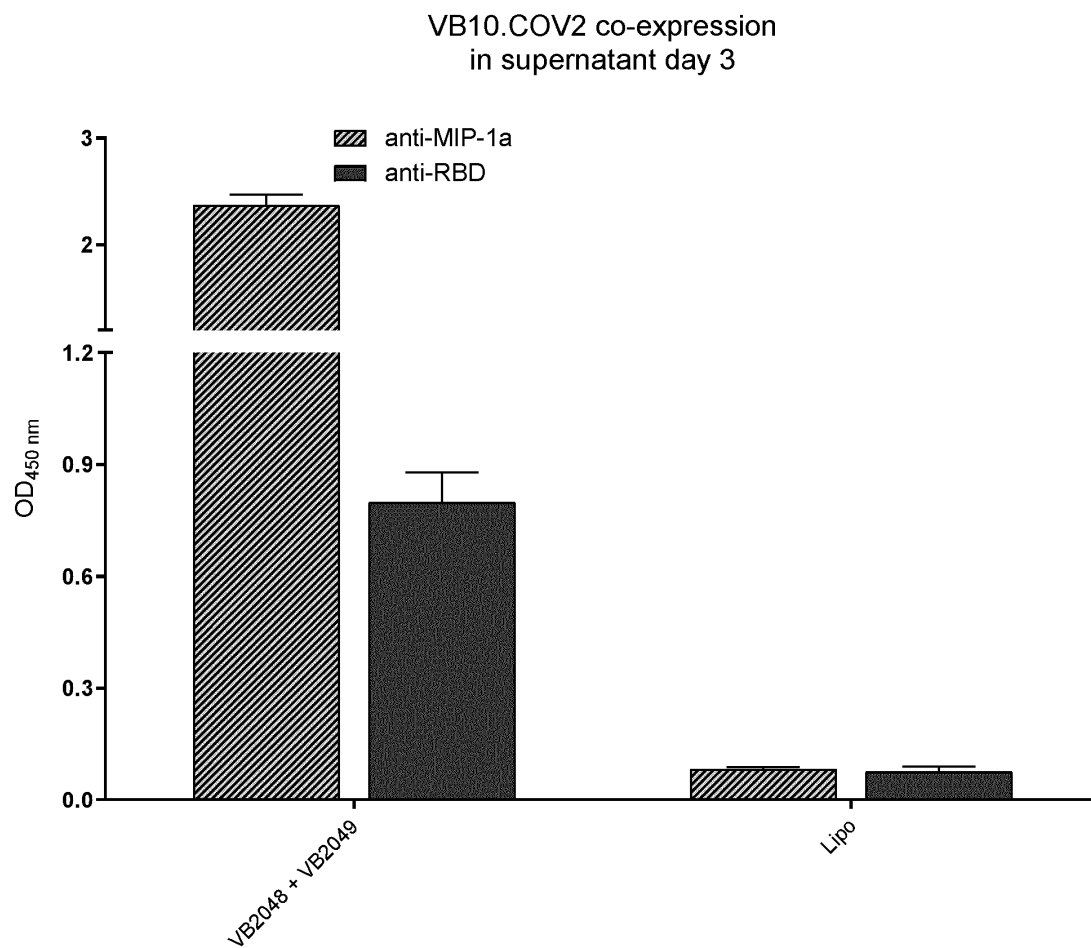


Fig. 56

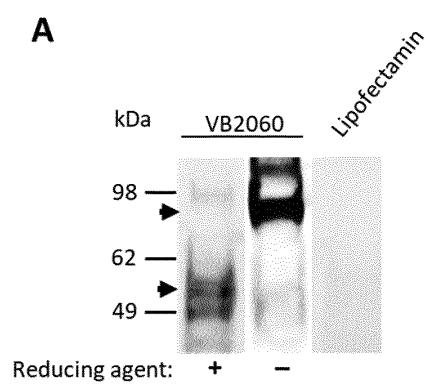


Fig. 57A.

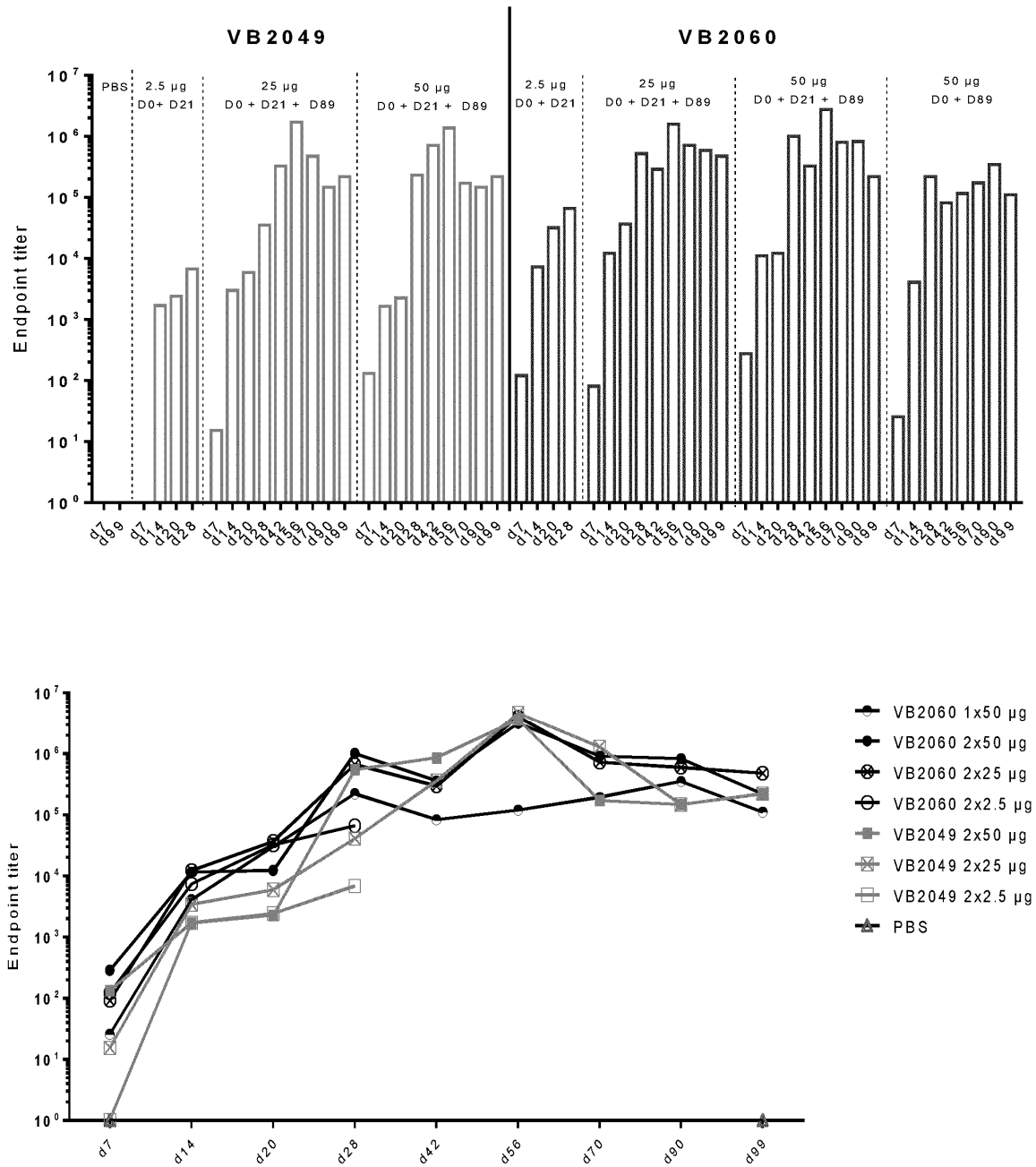


Fig. 57B.

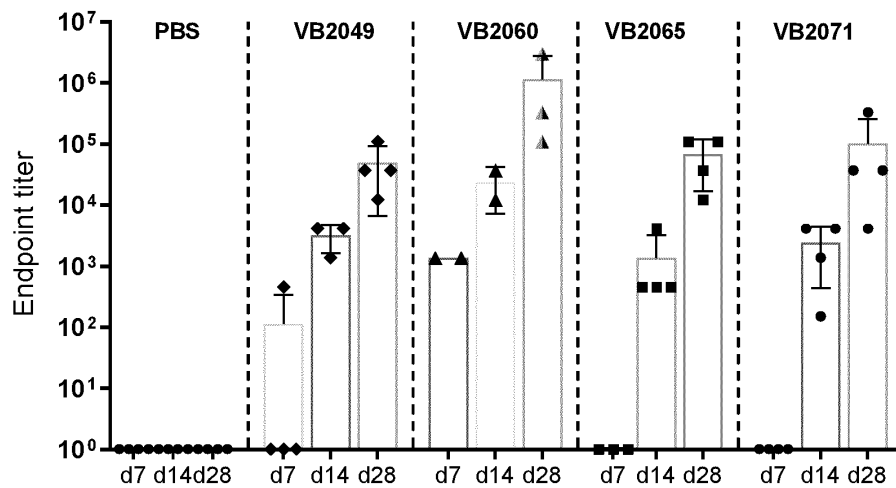


Fig. 57C.

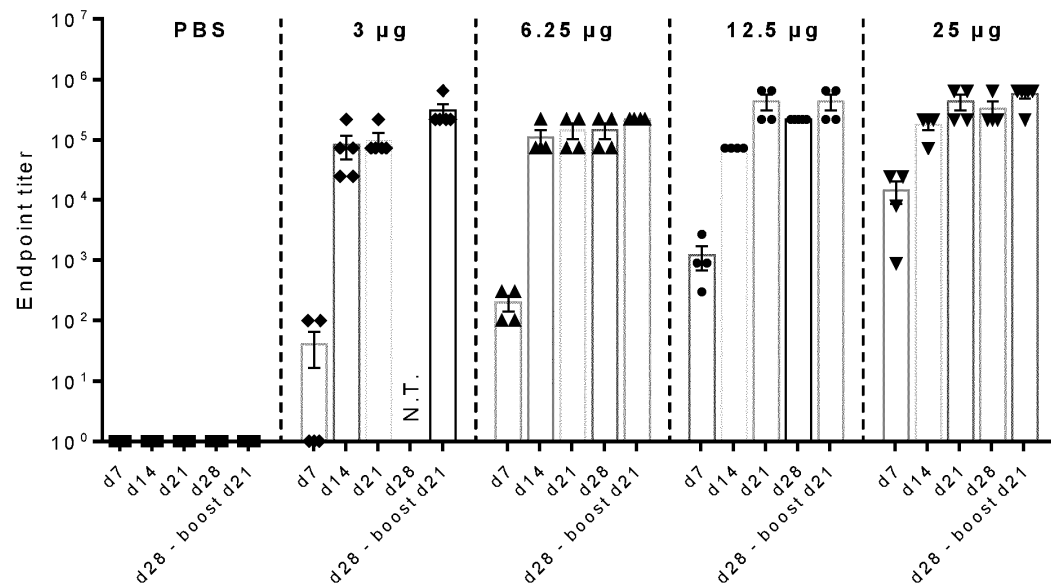


Fig. 57D.

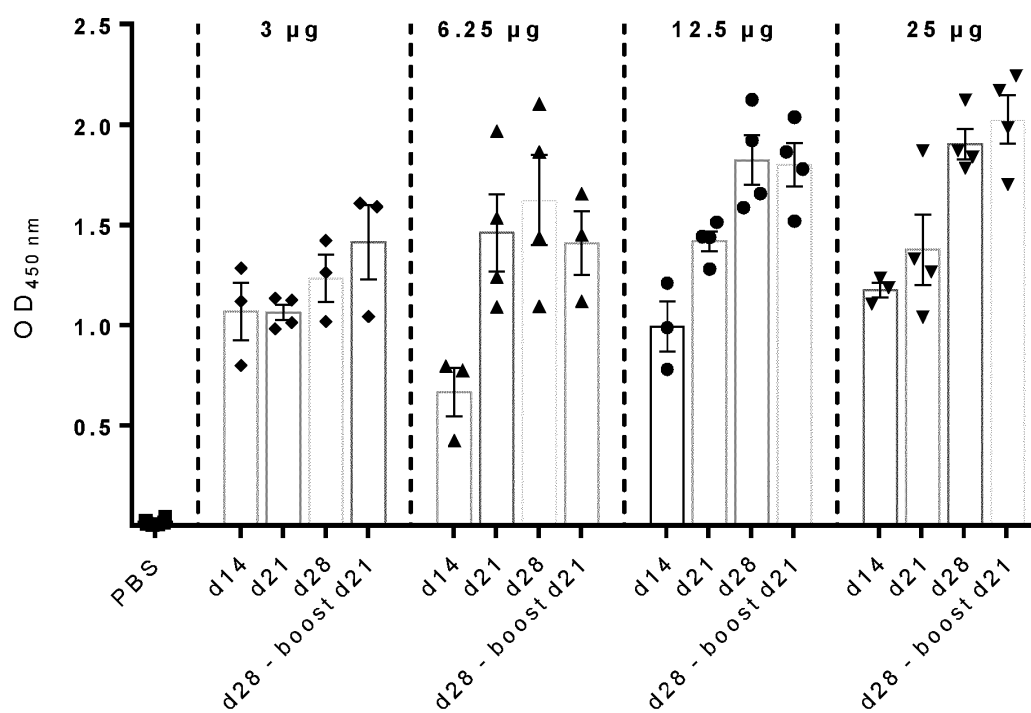


Fig. 57E.

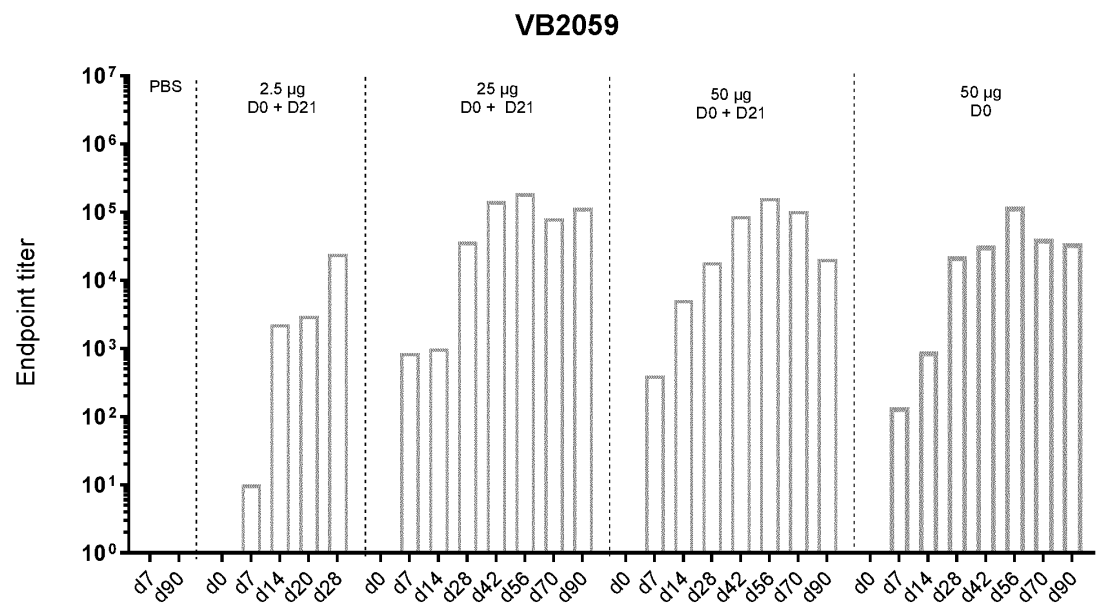


Fig. 57F.

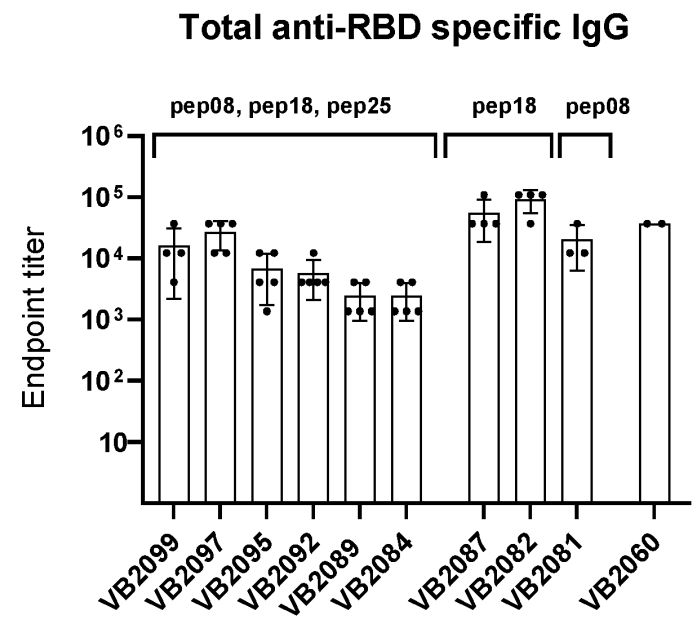


Fig. 57G.

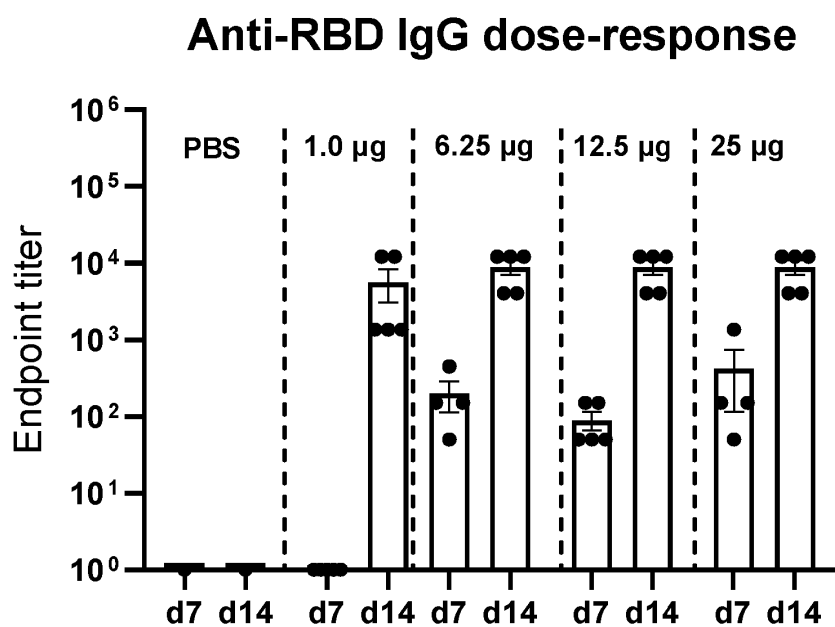


Fig. 57H.

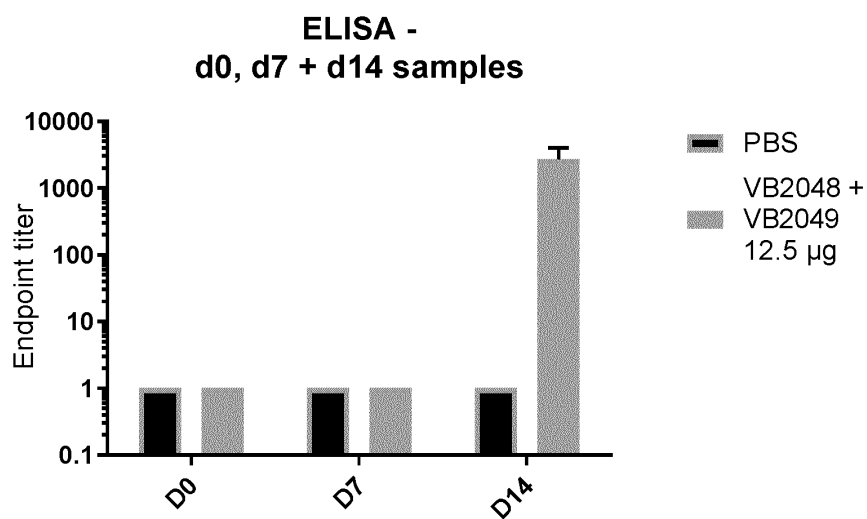
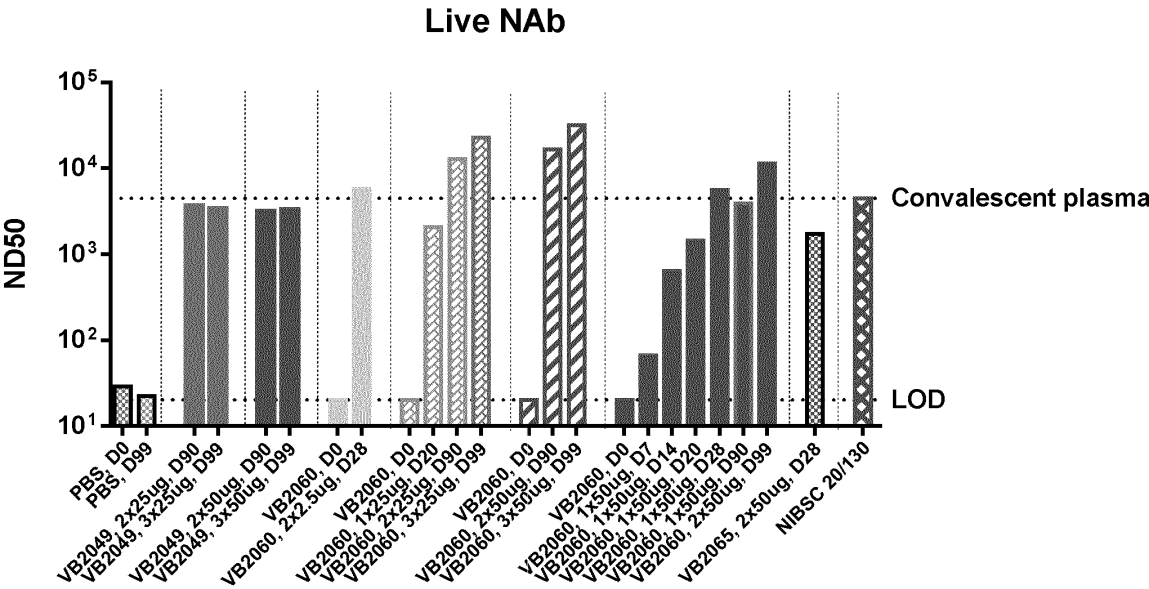


Fig. 58

A:



B:

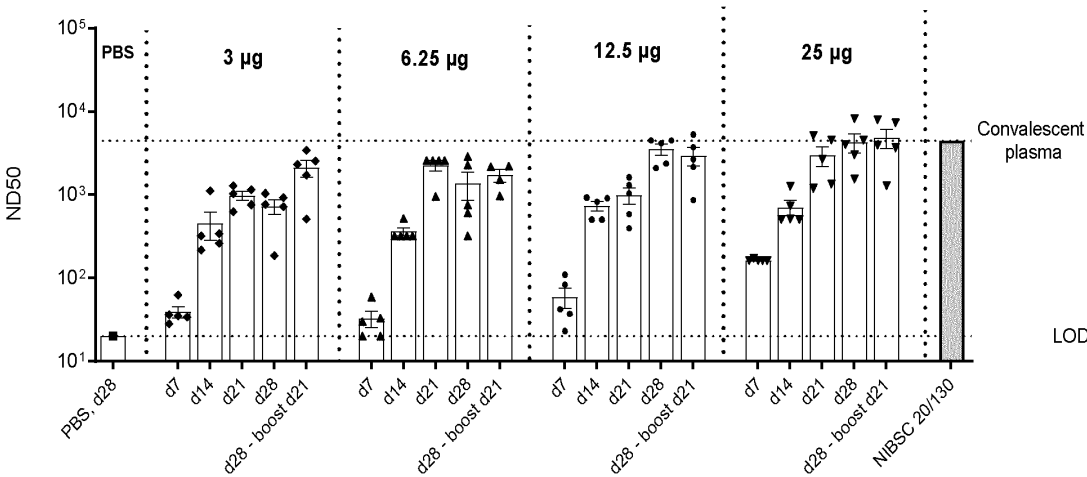


Fig. 59

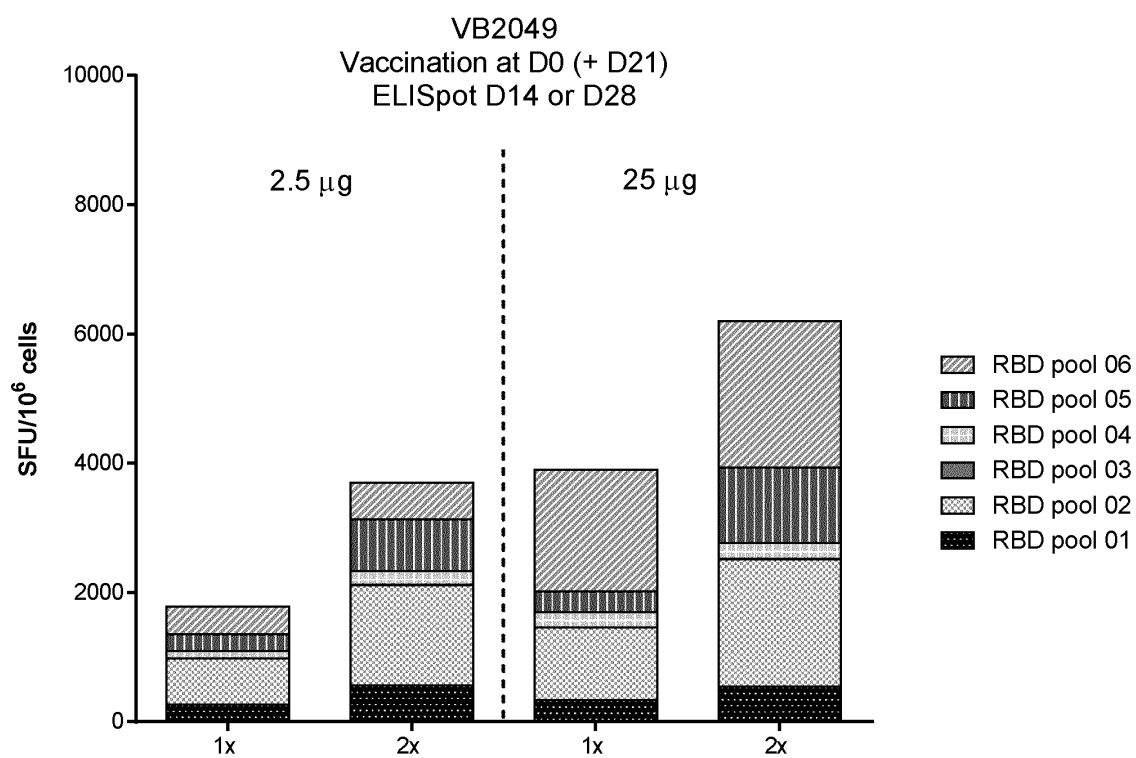


Fig. 60A.

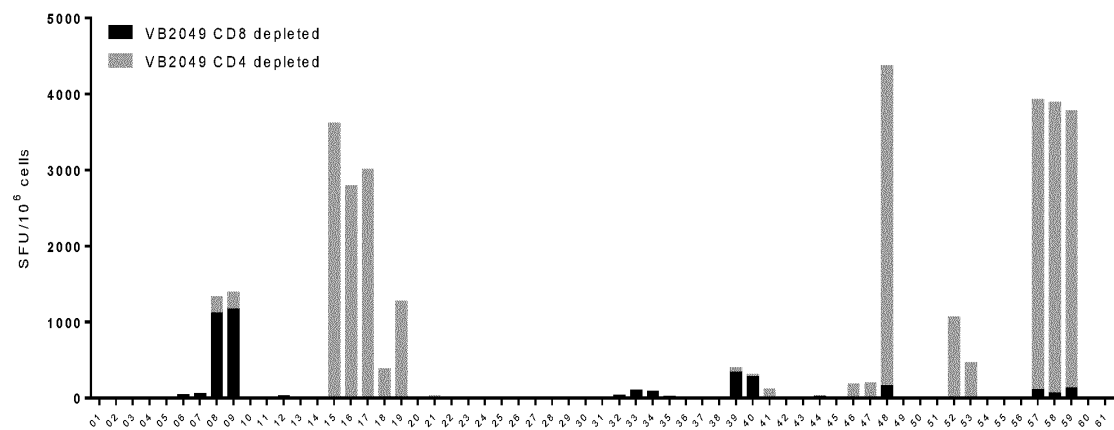


Fig. 60B.

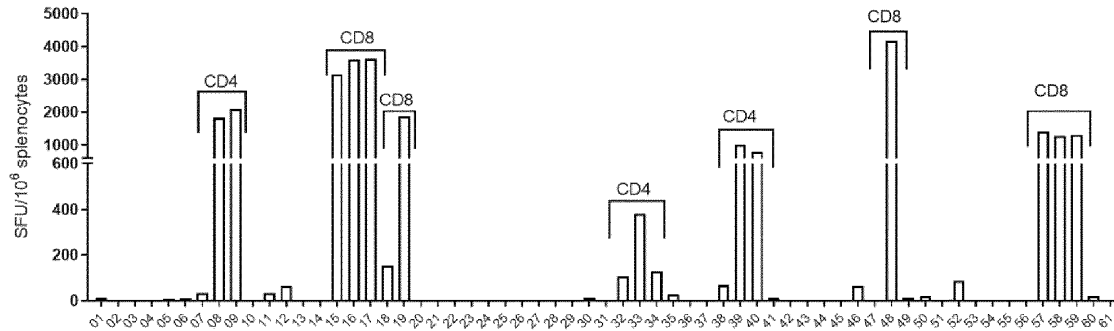
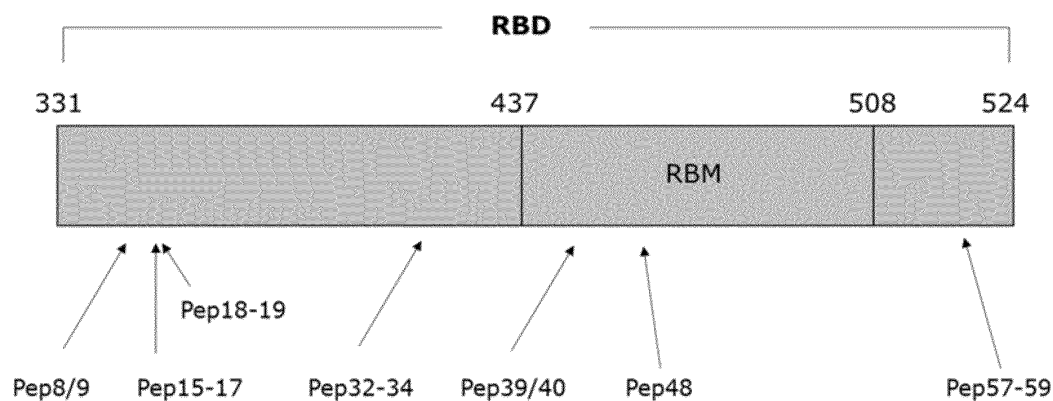


Fig. 60C.



Dominant peptides no./ SEQ ID NO:	sequence	Amino acid	CD4 or CD8 dominated response
08/304	AWNRRKRISNCVADYS	355-369	CD4 (medium)
09/305	RKRISNCVADYSVLY	358-370	CD4 (medium)
15/306	SFSTFKCYGVSP TKL	374-388	CD8 (strong)
16/307	TFKCYGVSP TKLNDL	377-391	CD8 (strong)
17/308	CYGVSP TKLNDLCFT	380-394	CD8 (strong)
18/309	VSPTKLNDLCFTNVY	383-397	CD8 (weak)
19/310	TKLNDLCFTNVYADS	386-400	CD8 (medium)
39/311	VGGNYNYLYRLFRKS	445-459	CD4 (weak)
40/312	NYNYLYRLFRKSNLK	448-462	CD4 (weak)
46/313	RDISTEIQAGSTPC	465-479	CD8 (weak)
47/314	STEIQAGSTPCNGV	468-482	CD8 (weak)
48/315	IYQAGSTPCNGVEGF	471-485	CD8 (strong)
52/316	EGFNCYFPLQSYGFQ	484-498	CD8 (medium)
53/317	NCYFPLQSYGFQPTN	487-501	CD8 (weak)
57/318	PTNGVGYPYRVVVL	499-511	CD8 (strong)
58/319	GVGYQPYRVVLSFE	502-516	CD8 (strong)
59/320	YQPYRVVLSFELLH	505-519	CD8 (strong)

Fig. 61A.

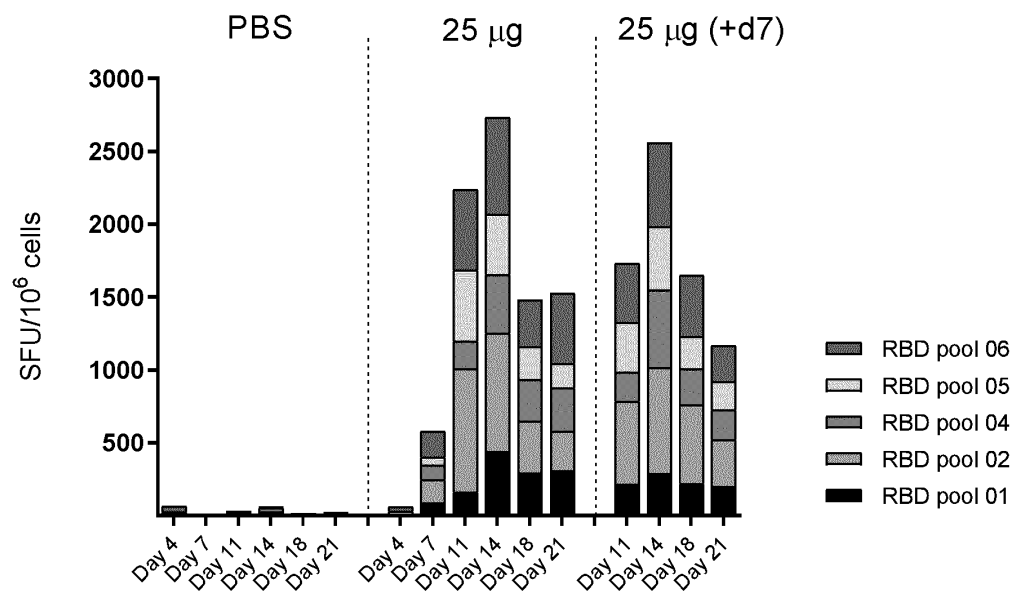


Fig. 61B.

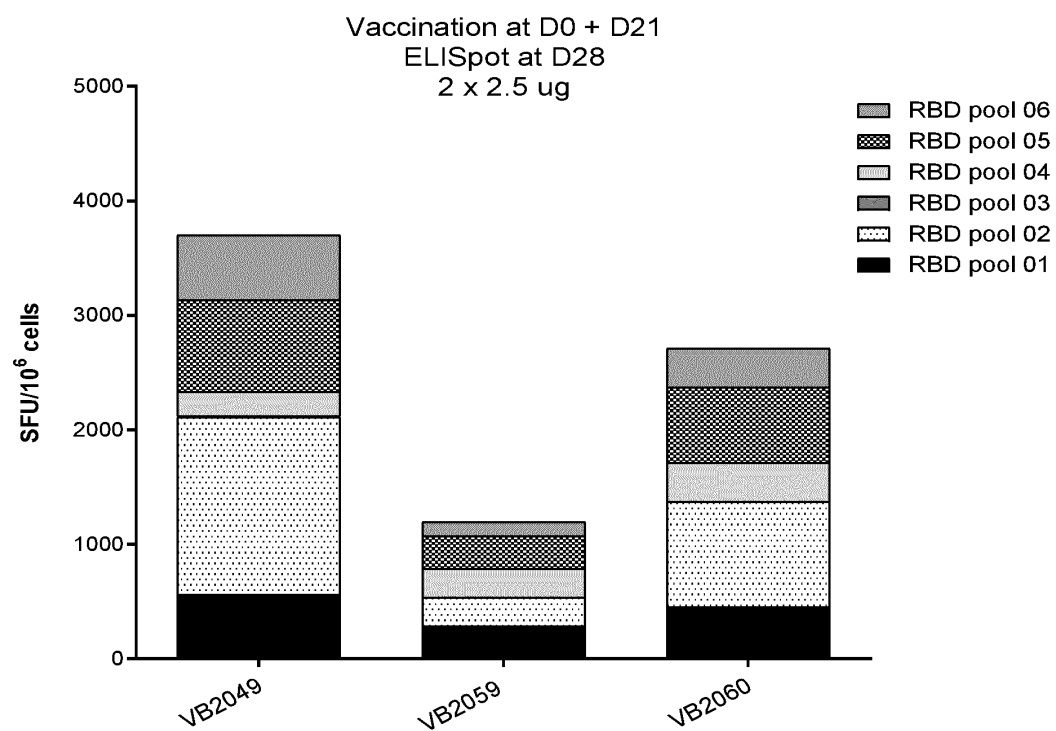


Fig. 62

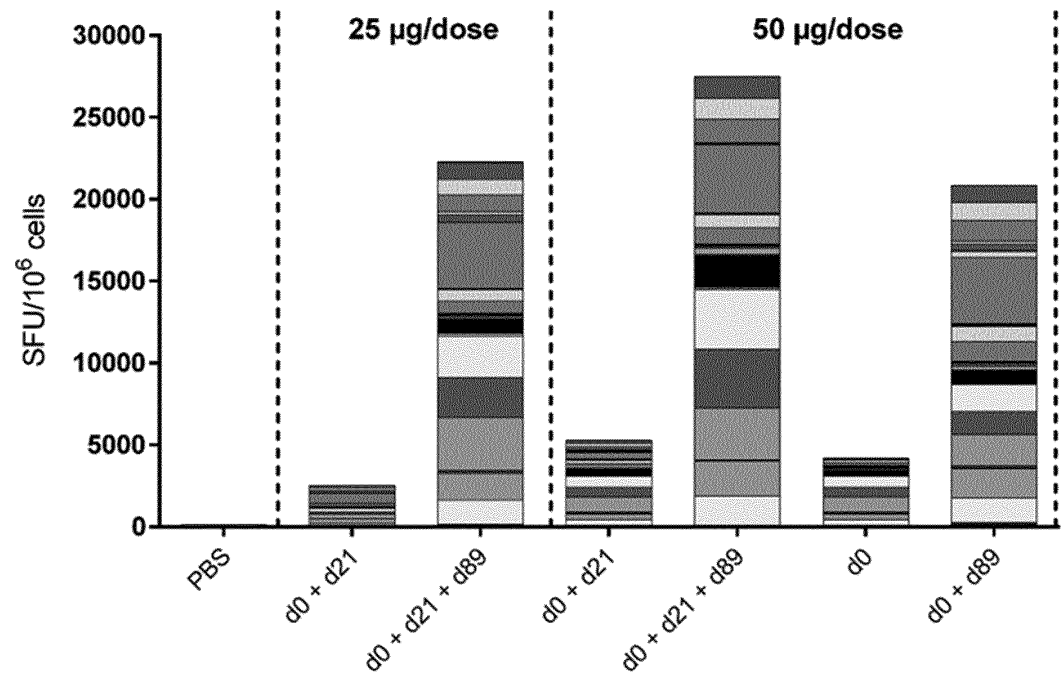
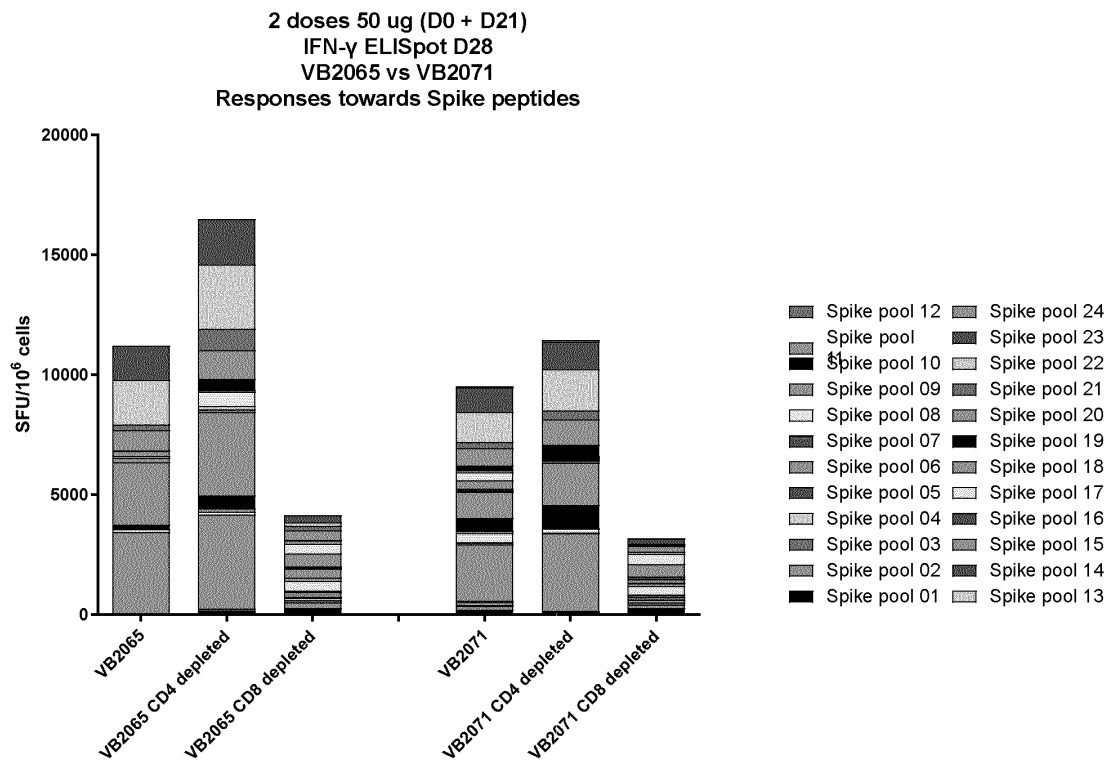


Fig. 63

A:



B:

RBD with S.A. mutations

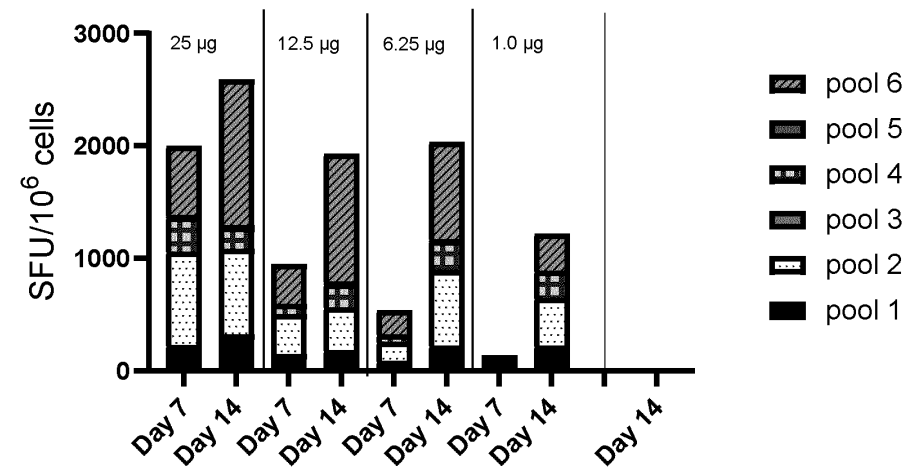


Fig. 64A.

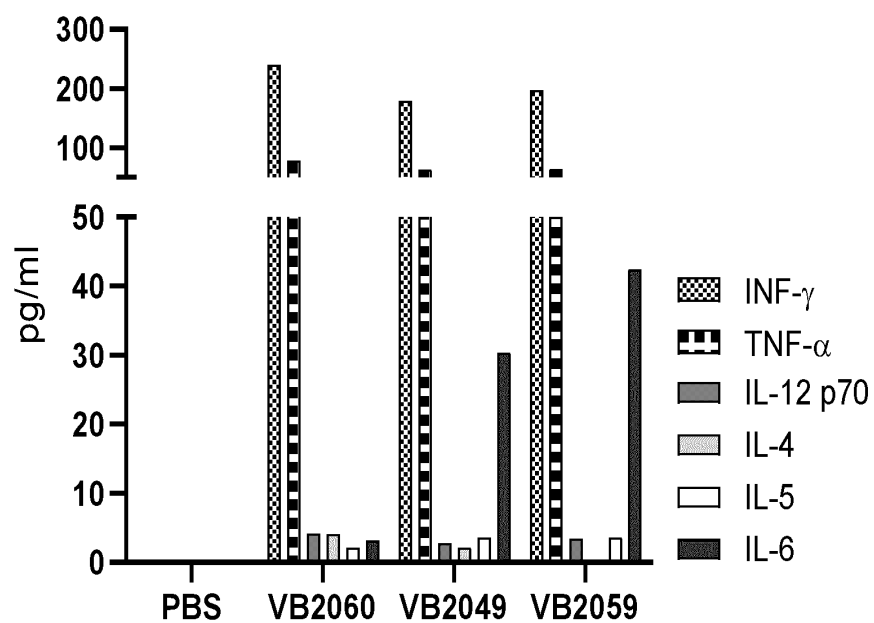


Fig. 64B.

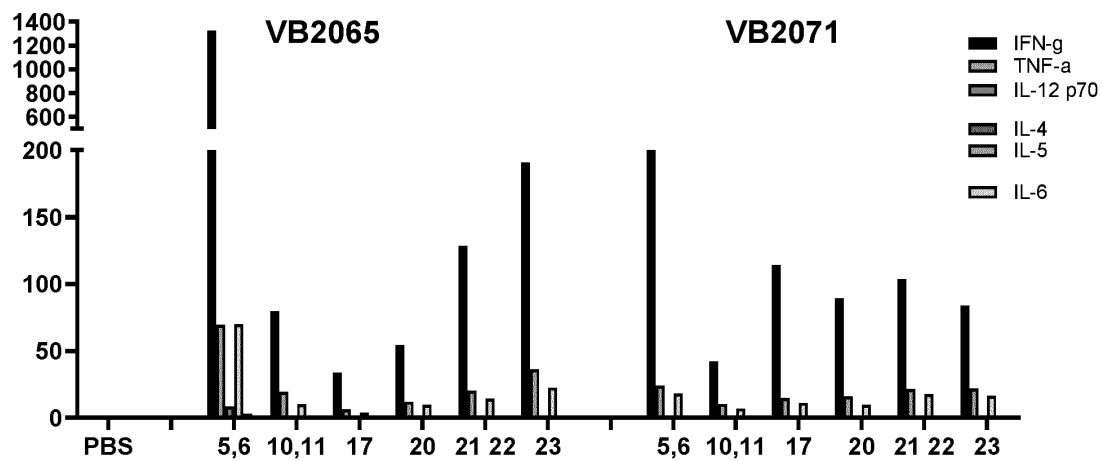


Fig. 65

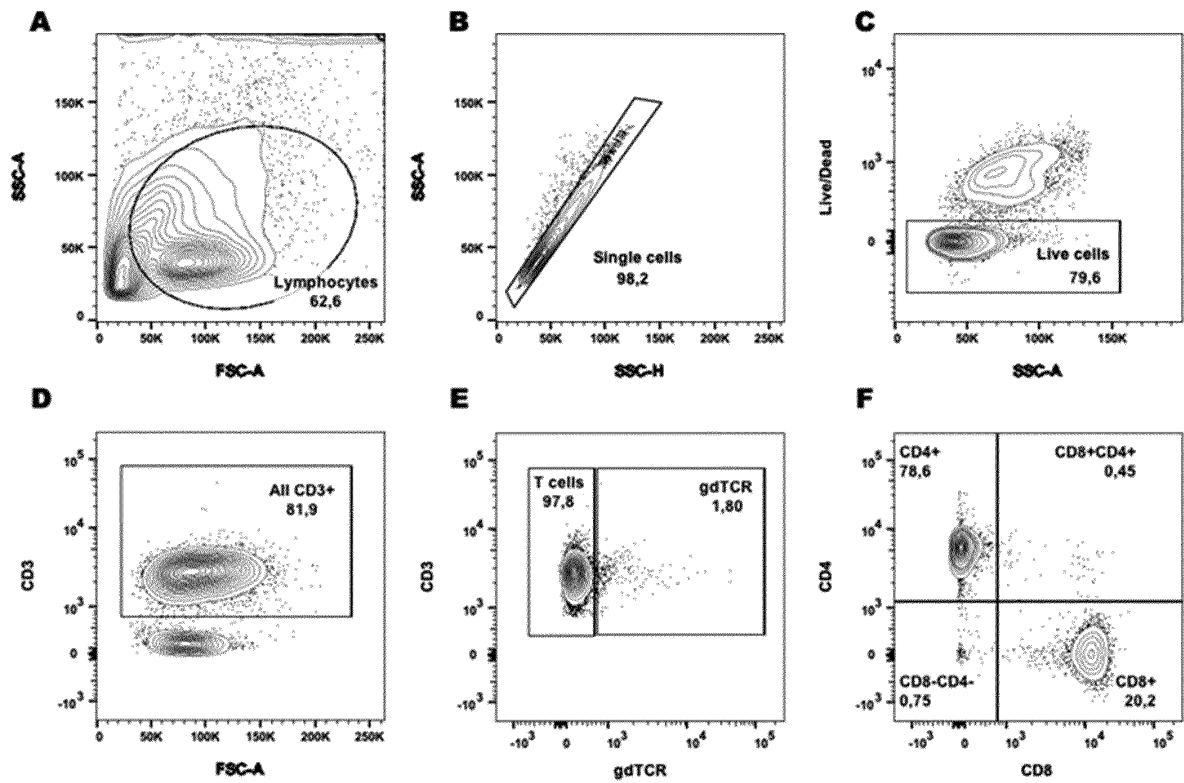


Fig. 66

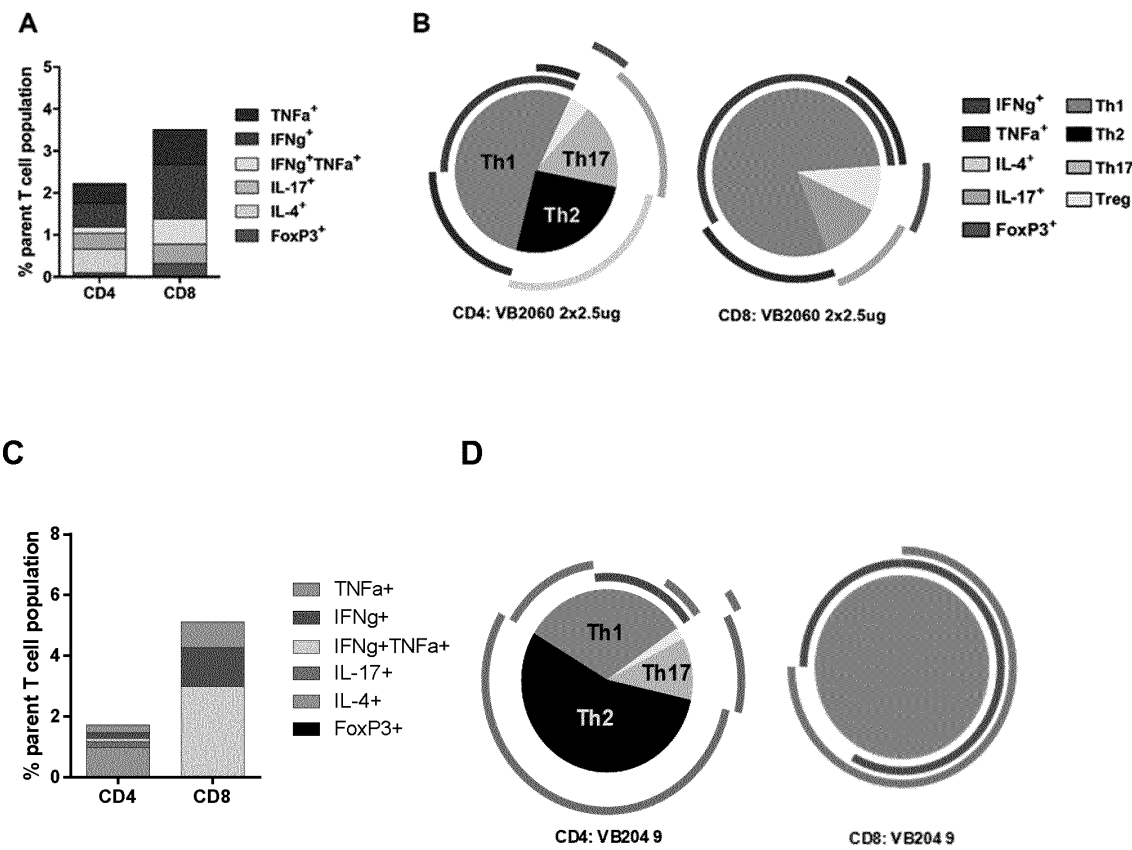


Fig. 67

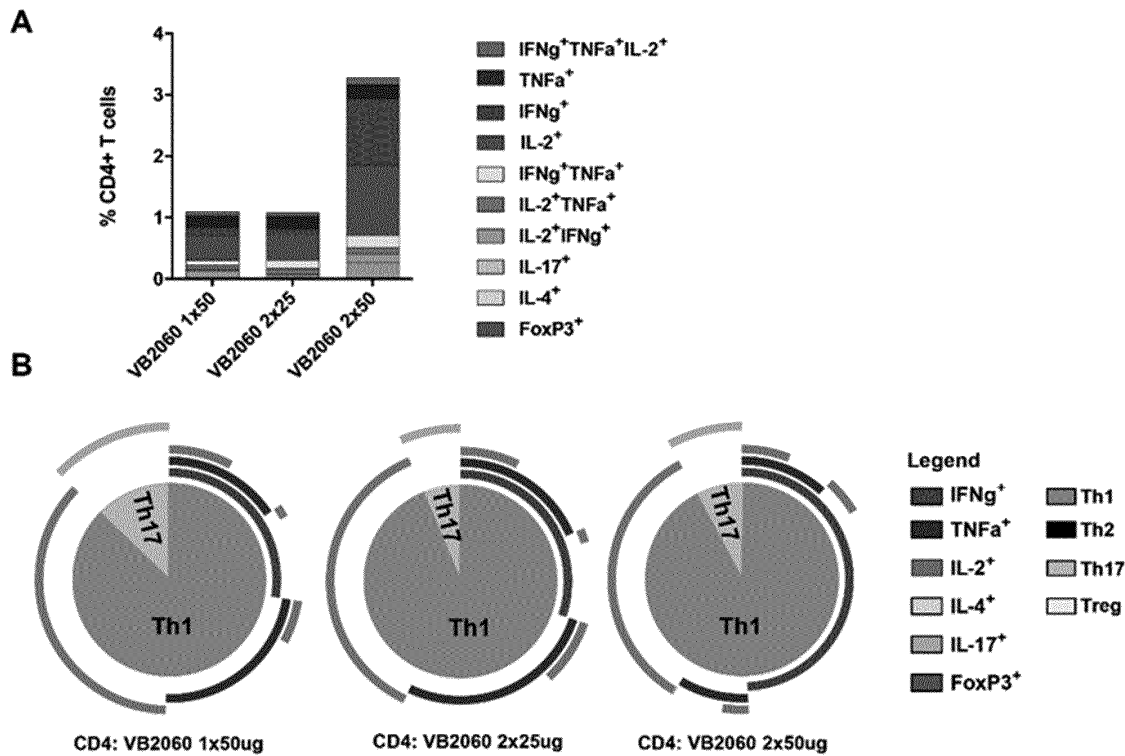


Fig. 68

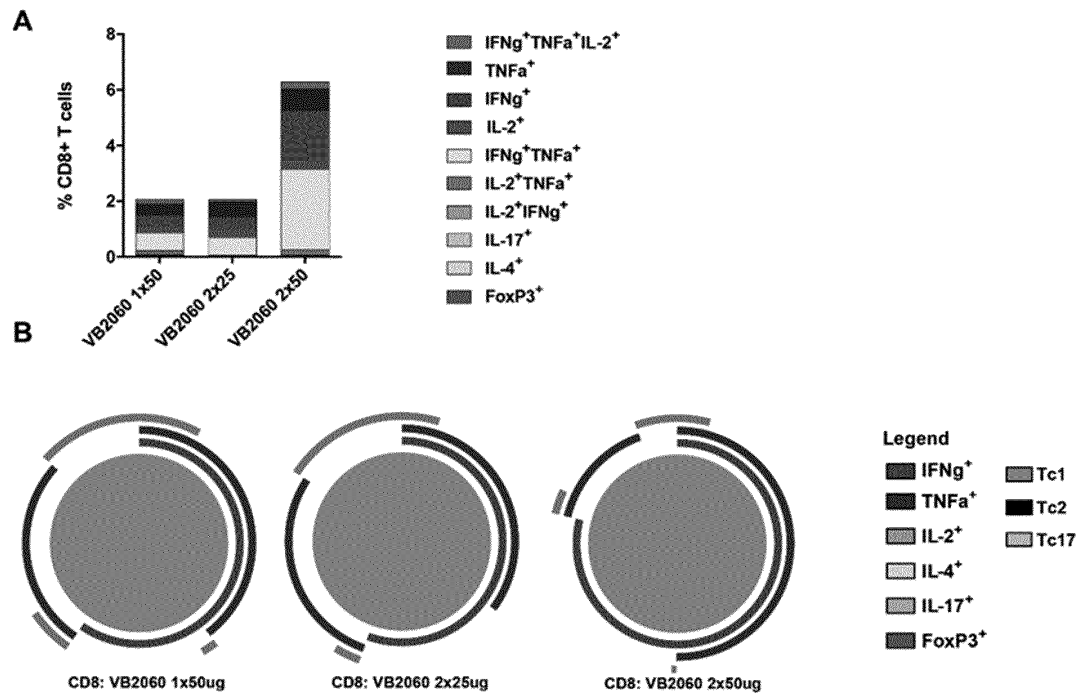


Fig. 69

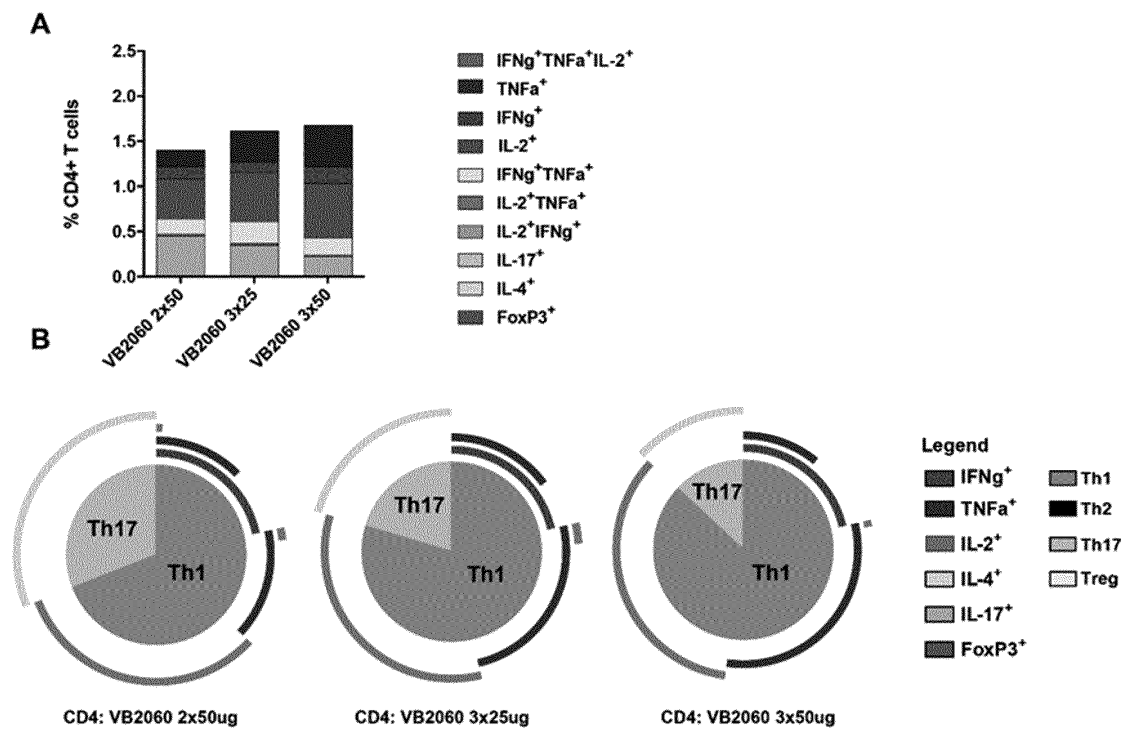


Fig. 70

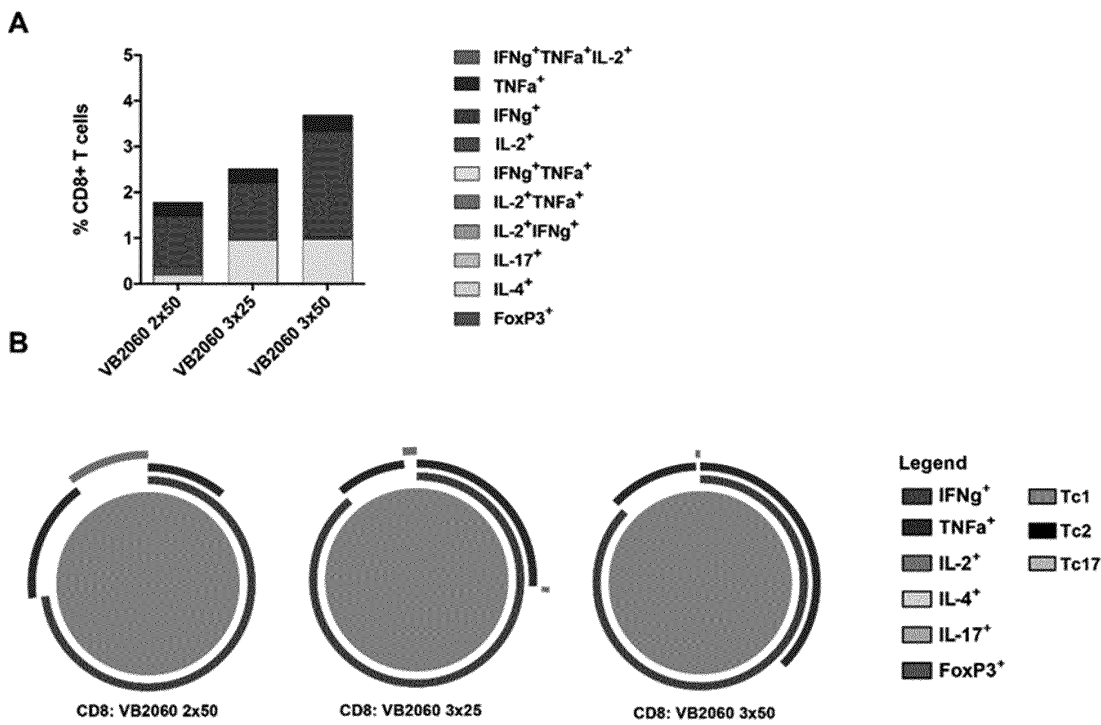


Fig. 71

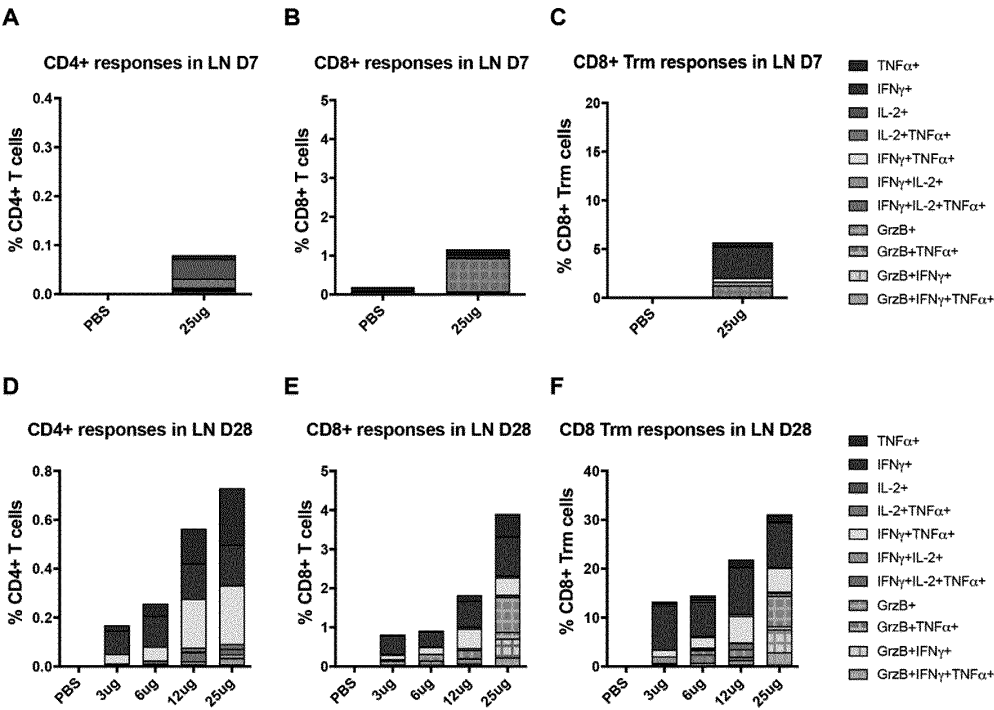


Fig. 72

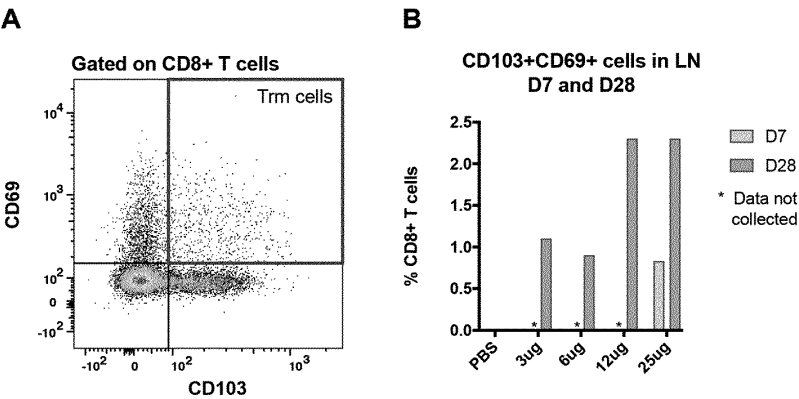


Fig. 74

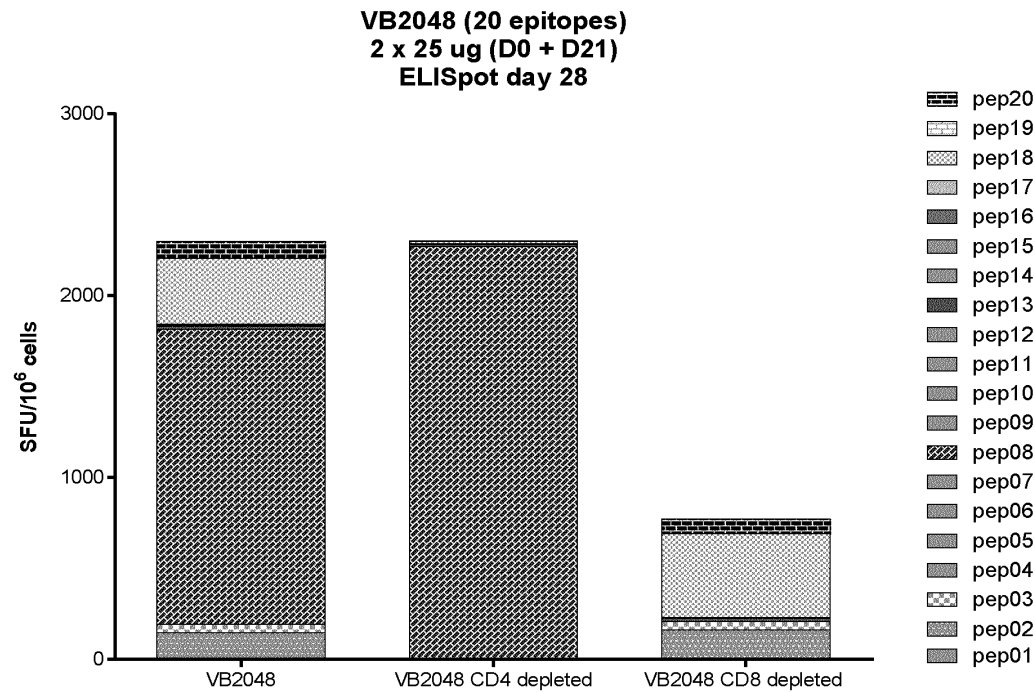


Fig. 75

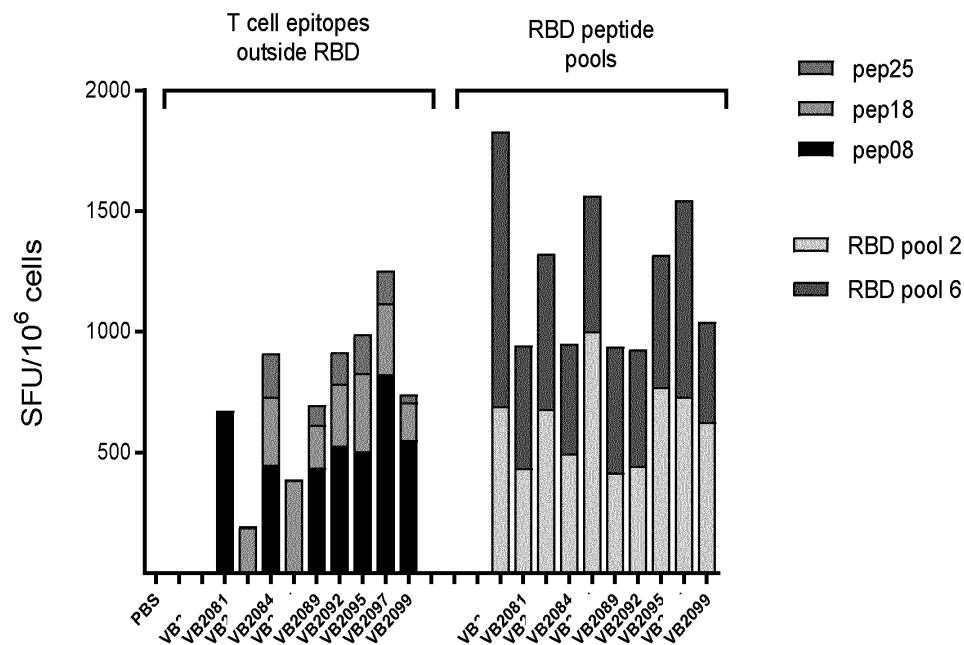


Fig. 76

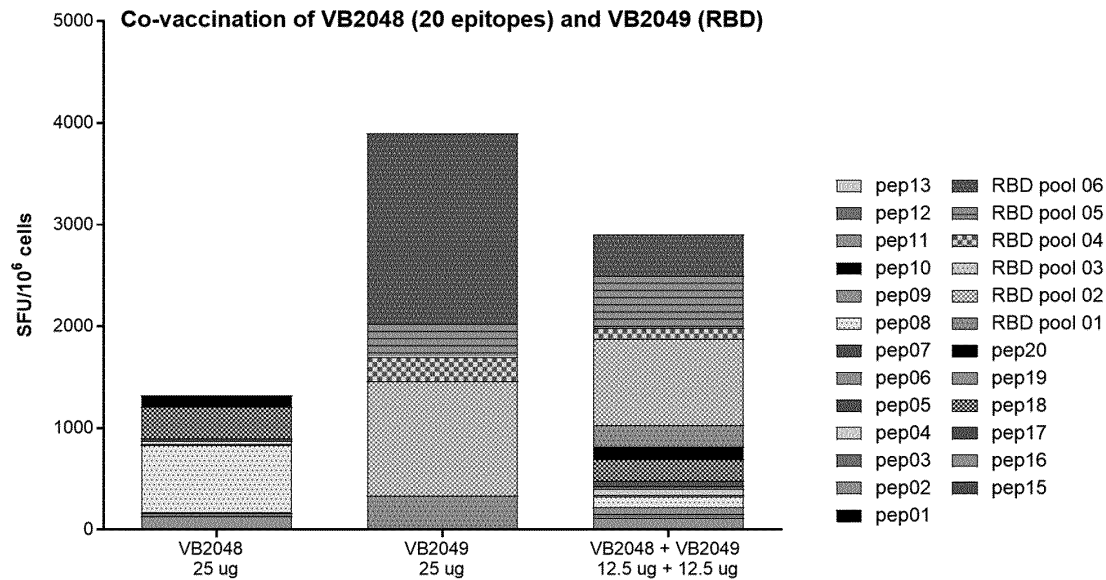


Fig. 77

SEQ ID NO: 321

MNFGRLRLIFLVLTCLKGVQC |
DIQMTQTSSLSASLGDRVTISCSASQDINNYLNWYQQKPDGTVKLLIYYTSSLHSGVPSRFSGSGSGTDYS
LTISNLEPEDIATYYCQYQSKFPRTFGGGKLEIKR | GGGGSGGGGSGGGGS |
QIQLVQSGPELKKPGETVKISCKASGYTFINYGMNWKQTPGKGLKWMGWINTYSGEPTYPPDFKGRFAFS
LETSASTAYLQLNNLKNEDMATYFCARGDYYGPFDNWGQGTTTLTVSS

Fig. 78

