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NITNLCPFGEVFNAIRFASVYAWNRRKRISNCVADYSVLNSASFSSTFKCYGVSP
TKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAW
NSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCNGVEGFNCY
FPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNF
NFENGLTGTGGGSGGSGGSGGSGGSTCPPCPAPELLGGPSVFLFPPKPKDTLMIS
RTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSV
LTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEM
TKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSFFLYSKLT
VDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

FIG. 1

MSLGAENSVAYSNNIAIPTNFTISVTTEILPVSMTKTSVDCTMYICGDSTEC
SNLLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTPPIKDFGGFNFSQI
LPDPSKPSKRSEFIEDLLFNKVTLADAGFIKQYGDCLGDIAARDLICAQKFNGLT
VLPPLLTDEMIAQYTSALLAGTITSGWTFGAGAALQIPFAMQMAYRFNGIGVT
QNVLYENQKLIANQFNSEAIGKIQDSLSTASALGKLQDVVNQNAQALNTLVK
QLSSNFGAISSVLNDILSRDLKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIR
ASANLAATKMSECVLGQSKRVDFCGKGYHLMSPQSAHPGVVFLHVTVPA
QEKNTTAPAICHGDKAHFPREGVFVSNNGTHWFVTQRNFYEPQIITDNTFVS
GNCDVVIGIVNNTVYDPLQPELDSFKEELDKYFKNHTSPDVLGDISGINASV
VNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPGSGSGSGSGSGSGST
CPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWY
VDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALP
APIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWES
NGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVVFSCSVMHEALHNH
YTQKSLSLSPGK

FIG. 2

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VNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFSNVTWFHAIH
VSGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLLIVNNA
TNVVIKVCEFQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPF
LMDLEGKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVD
LPIGINITRFQTLLALHRSYLTPGDSSSGWTAGAAAYYVGYLQPRTFLLKYNEN
GTITDAVDCALDPLSETKCTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCP
FGEVFNATRFASVYAWNRRKRISNCVADYSVLVNSASFSTFKCYGVSPTKLNDL
CFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDS
KVGGNYNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVEGFNCYFPLQSYG
FQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTG
TGVLTESNKKFLPFQQFGRDIADTTDAVRDPQTLEILDITPCSFGGVSIVITPGTN
TSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTGSNVFQTRAGCLIGAEH
VNNSYECDIPIGAGICASYQTQTSNPRRARGGSGGSGGSGGSGGSTCPPCPAPE
LLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVH
NAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTIS
KAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQSVMSHEALHNHYTQKSL
SLSPGK

FIG.3

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VNLTTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFSNVTWFHAIH
VSGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLLIVNNA
TNVVIKVCEFQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPF
LMDLEGKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVD
LPIGINITRFQTLLALHRSYLTPGDSSSGWTAGAAAYYVGYLQPRTFLLKYNEN
GTITDAVDCALDPLSETKCTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCP
FGEVFNATRFASVYAWNRRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNLDL
CFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDS
KVGGNYNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVEGFNCYFPLQSYG
FQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTG
TGVLTESNKKFLPFQQFGRDIADTTDAVRDPQTLEILDITPCSFGGVSVITPGTN
TSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTGSNVFQTRAGCLIGAEH
VNNSYECDIPIGAGICASYQTQTNSPRRARSVASQSIIAYTMSLGAENSVAYSN
NSIAIPTNFTISVTTEILPVSMTKTSVDCTMYICGDSTECSNLLLQYGSFCTQLN
RALTGIAVEQDKNTQEVFAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSFIE
DLLFNKVTLADAGFIKQYGDCLGDIAARDLICAQKFENGLTVLPPLLTDemiaQ
YTSALLAGTITSGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKLIA
NQFNSAIGKIQDSLSTASALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVL
NDILSRDLKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSE
CVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTYVPAQEKNFTTAPAICH
DGKAHFPREGVFVSNGTHWFVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNT
VYDPLQPELDSFKEELDKYFKNHTSPDVDLGDISGINASVVNIQKEIDRLNEVA
KNLNEIDLQELGKYEQYIKWPGGSGGSGGSGGSGGSTCPPCPAPELLGGPS
VFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKP
REEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQP
REPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPP
VLDSGDGSFFLYSKLTVDKSRWQQGNVFSQSVMEALHNHYTQKSLSLSPGK

FIG.4

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MLLVNQSHQGFGNKEHTSKMVSAIVLYVLLAAAAHSAFAAD

FIG.5

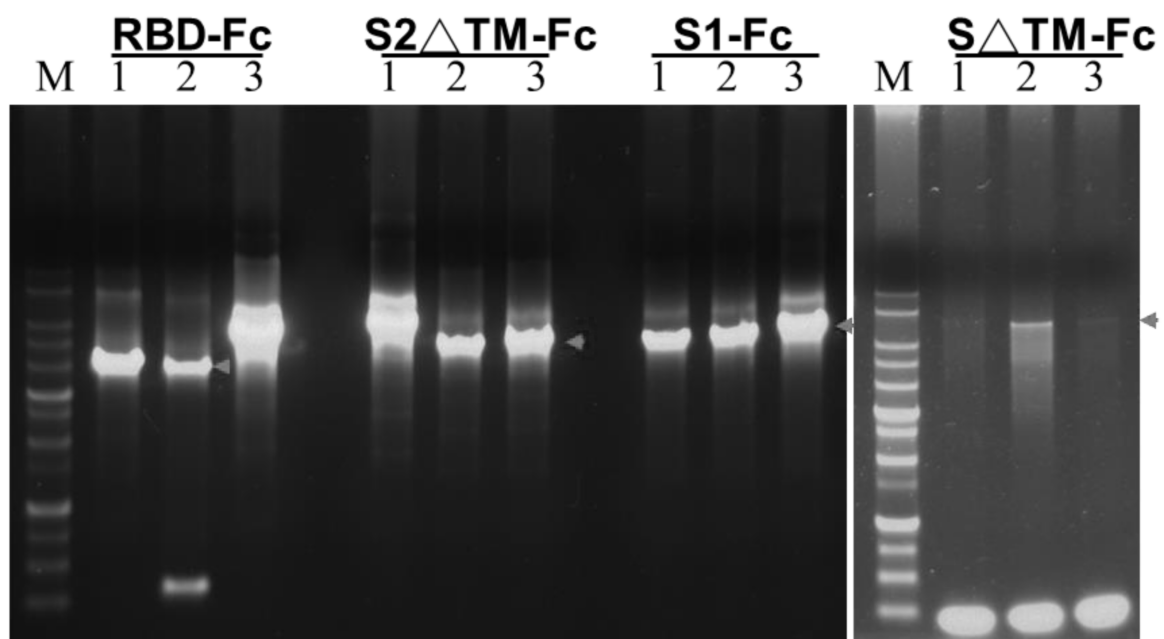


FIG.6

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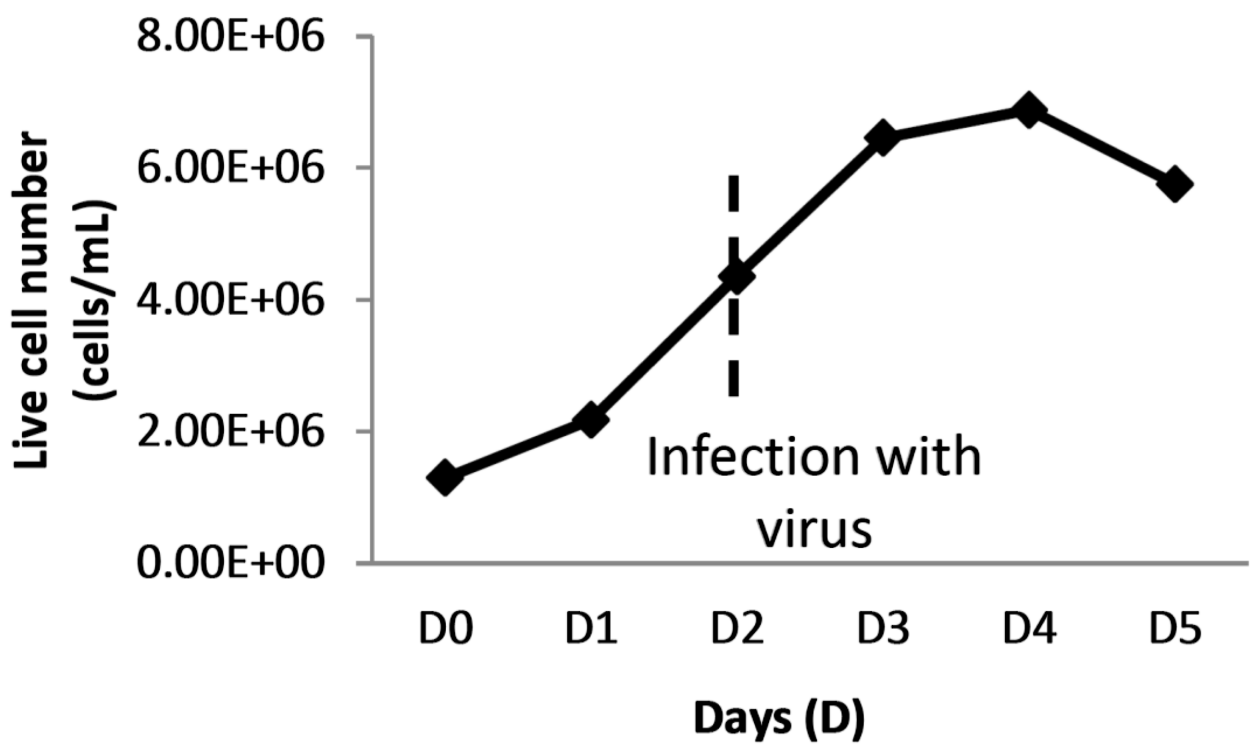


FIG.7

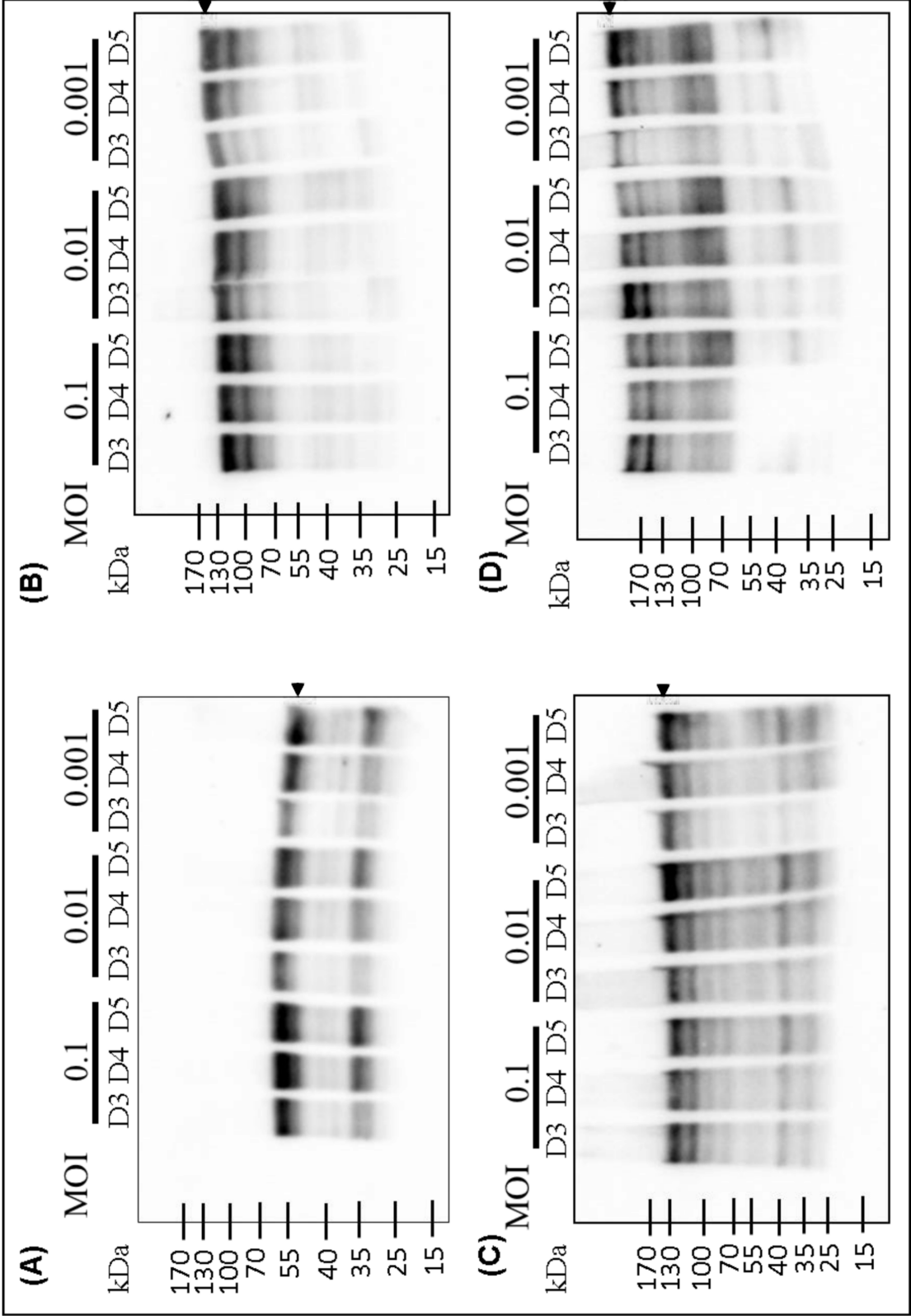


FIG.8

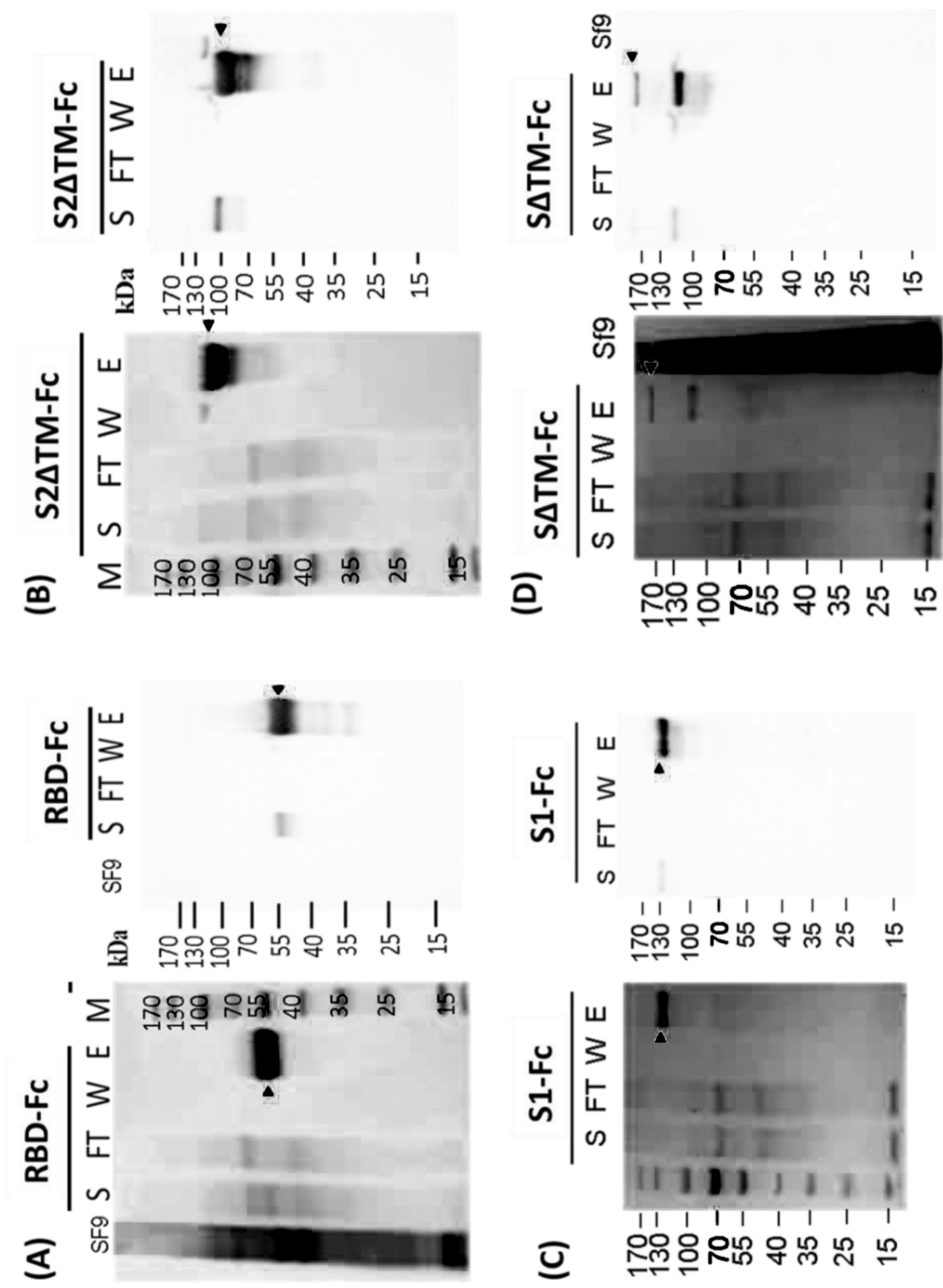


FIG.9

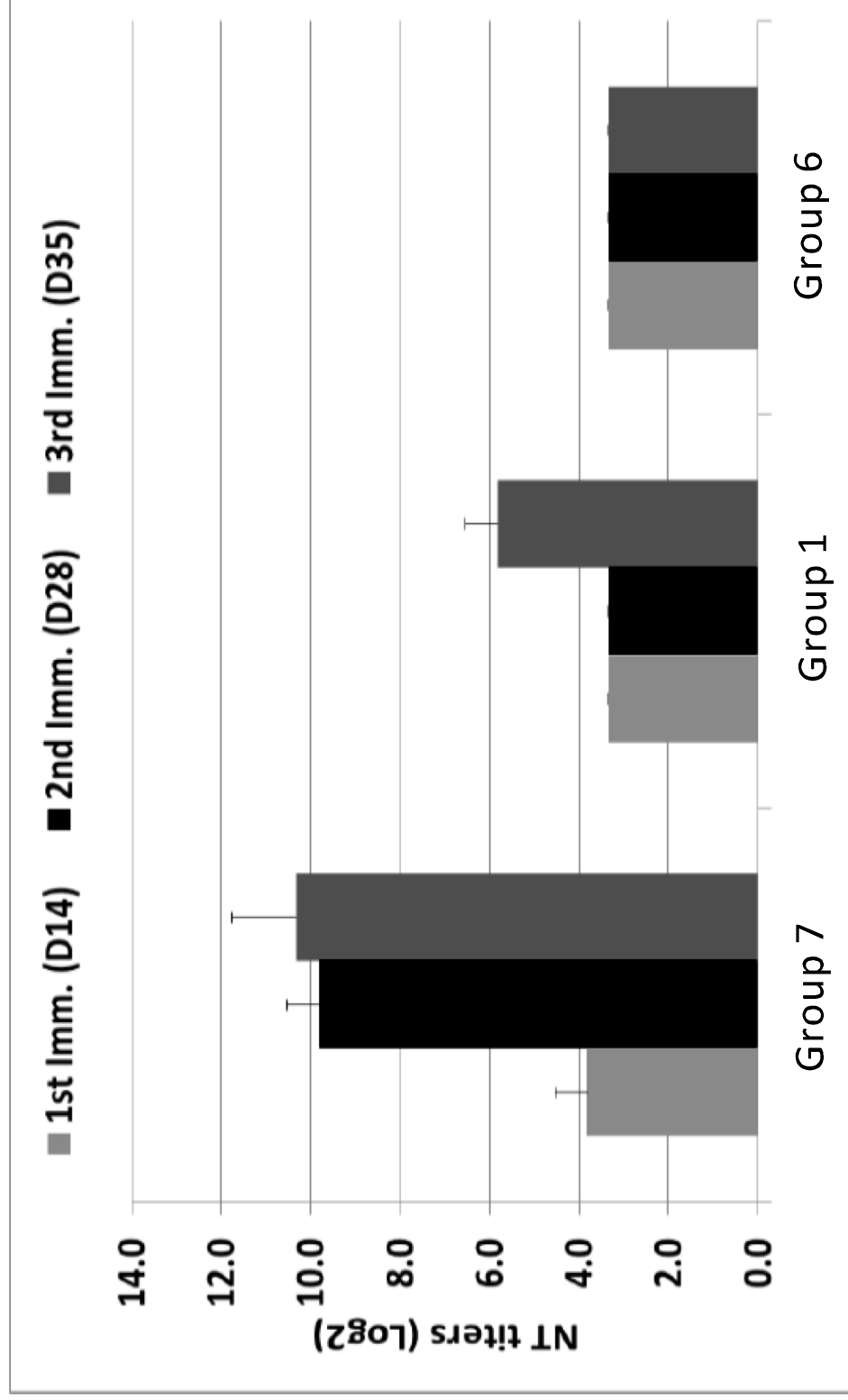


FIG.10

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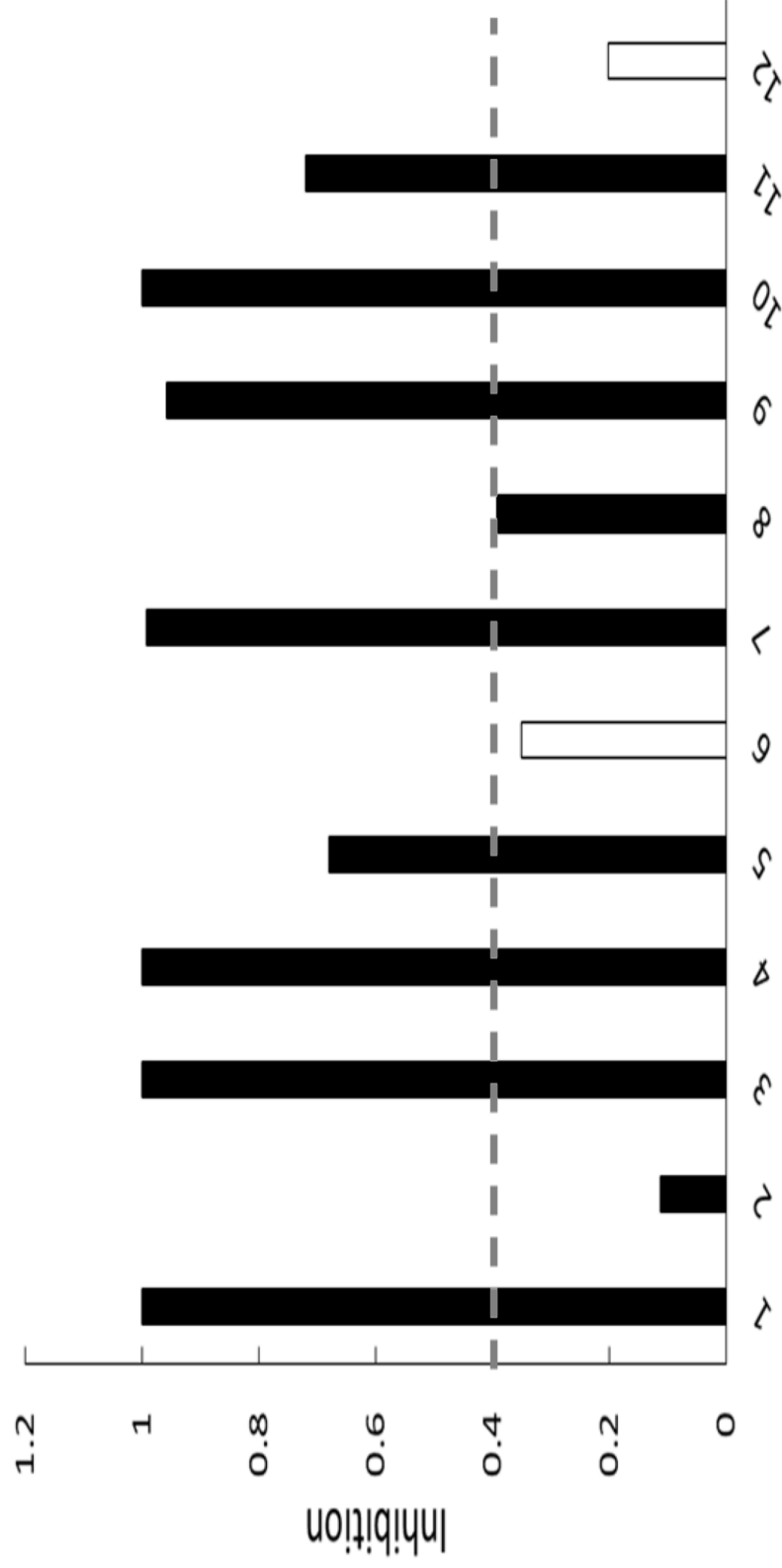


FIG.11

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N protein

MSDNGPQNQRNAPRITFGGSDSTGSNQNGERSGARSKQRRPQGLPNNTASW
FTALTQHGKEDLKFPRGQGVPIINTNSSPDDQIGYYRRATTRIRGGDGKMKDLS
PRWYFYYLGTGPEAGLPYGANKDGIWVATEGALNTPKDHIGTRNPANNAAI
VLQLPQGTTLPKGFYAEGSRGGSQASSRSSSRNSSRNSTPGSSRGTSPARMA
GNGGDAALALLLDRLNQLESKMSGKGQQQQGQTVTKKSAAEASKKPRQK
RTATKAYNVTQAFGRRGPEQTQGNFGDQELIRQGTDYKHWPQIAQFAPSASA
FFGMSRIGMEVTPSGTWLTYTGAIKLDDKDPNFKDQVILLNKHIDAYKTFPPT
EPKKDKKKKADETQALPQRQKKQQTVTLLPAADLDDFSKQLQQSMSSADST
QA

E protein

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCCNIVNVSLVKPS
FYVYSRVKNLNSSRVPDLLV

M protein

MADSNGTITVEELKKLLEQWNLVIGFLFTWICLLQFAYANRNRFLYIIKLIFLW
LLWPVTLACFVLAAYRINWITGGIAIAMACLVGLMWLSYFIASFRLFARTRS
MWSFNPETNILLNVPLHGTILTRPLLESELVIGAVILRGHLRIAGHHLGRCDIKD
LPKEITVATSRTLSTYKLGASQRVAGDSGFAAYSRYRIGNYKLNTDHSSSSDNI
ALLVQ

FIG.12

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AAAATTTTACTGTTTTTCGTAACAGTTTTGTAAATAAAAAAACCTATAAATATT
CCGGATTATTCATACCGTCCCACCATCGGGCGCGGATCCCGGTCCGAAGCG
CGCGGAATTCATGCTGCTGGTCAACCAGAGCCACCAGGGTTTCAACAAGG
AACACACCTCAAAGATGGTGTCCGCCATCGTGCTGTACGTCCTGCTGGCTG
CTGCTGCTCACTCAGCTTTTCGCTGCCGACAACATCACCAACCTGTGCCCCAT
TCGGCGAGGTCTTCAACGCTACTAGGTTCGCCTCCGTGTACGCTTGGAACC
GCAAGCGTATCAGCAACTGCGTGGCCGACTACTCTGTCCTGTACAACTCCG
CTAGCTTCTCTACTTTCAAGTGCTACGGAGTGTCACCTACCAAGCTGAACG
ACCTGTGCTTCACTAACGTGTACGCCGACTCCTTCGTCATCCGCGGTGACG
AAGTGCGTCAGATCGCCCCAGGACAGACCGGCAAGATCGCTGACTACAAC
TACAAGCTGCCTGACGACTTCACTGGATGCGTCATCGCTTGGAACAGCAAC
AACCTGGACTCTAAAGTGGGTGGCAACTACAACCTACCTGTACAGGCTGTTC
AGAAAGAGCAACCTGAAGCCTTTCGAGAGGGACATCAGCACCGAAATCTA
CCAGGCCGGTTCTACTCCCTGCAACGGCGTCGAAGGATTCAACTGCTACTT
CCCCCTGCAGTCTTACGGCTTCCAGCCAACCAACGGTGTGGGCTACCAGCC
TTACAGAGTGGTCGTGCTGAGCTTCGAACTCCTCCACGCTCCAGCTACTGT
CTGCGGTCTTAAGAAGTCTACTAACCTGGTGAAGAACAAGTGCGTCAACTT
CAACTTCAACGGTCTGACTGGAACCTGGAGGTGGCTCCGGAGGTAGCGGCG
GATCTGGTGGCTCAGGAGGTTCTACTTGCCCTCCCTGCCAGCTCCTGAGC
TGCTGGGCGGACCCTCCGTGTTCTGTTCCACCTAAGCCAAAGGACACTC
TGATGATCTCACGCACCCCCGAAGTCACTTGCGTCGTGGTTCGACGTGTCCC
ACGAGGACCCAGAAGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTC
CACAACGCTAAGACCAAGCCCAGGGAGGAACAGTACAACCTCAACCTACAG
AGTGGTCTCCGTGCTGACTGTCCTGCACCAGGACTGGCTGAACGGCAAGG
AGTACAAGTGCAAGGTCAGCAACAAGGCTCTGCCCCGCCCAATCGAGAAG
ACCATCTCTAAGGCCAAGGGACAGCCTCGCGAACCCCAGGTGTACACTCT
GCCCCCAAGCCGTGAGGAAATGACCAAGAACCAGGTCTCTCTGACTTGCC
TGGTGAAGGGATTCTACCCTTCAGACATCGCTGTGGAGTGGGAATCCAACG
GTCAGCCCGAAAACAACCTACAAGACCACTCCTCCCGTCCTGGACAGCGAC
GGCTCTTTCTTCCTGTACTCAAAGCTGACCGTGGACAAGTCCCGTTGGCAG
CAGGGAAACGTGTTCTCATGCTCCGTCATGCACGAGGCTCTGCACAACCAC
TACACTCAGAAGAGCCTGTCTCTGTACCTGGCAAGTAACTCGAGGCATGC
GGTACCAAGCTTGTGCGAGAAGTACTAGAGGATCATAATCAGCCATACCACA
TTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCCTGAACC
TGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTAT
AATGGTTACAAATAAAGCAATAGCATCACAAATTCACAAATAAAGCATTTT
TTTCACTGCATCTAGTGTATTGTCAAACCTCATCATGTATCTATCATGTCTGAT

(continue)

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CTGATCACTGCCTTGAGCTTAGAGATCCGACCGATATGGATCTAAGTCCACT
ATTGTCATTTTACTTCGGATAGCTACGAACGCTACACCAGCTGCA

FIG.13

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AAGATTTACTGTTTTTCGTAACAGTTTTGTAAATAAAAAAACCTATAAATATTCC
GGATTATTCATACCGTCCCACCATCGGGCGCGGATCCCGGTCCGAAGCGCG
CGGAATTCATGCTGCTGGTGAACCAGTCACACCAGGGCTTCAACAAGGAG
CACACCTCAAAGATGGTCTCCGCTATCGTCCTGTACGTGCTGCTGGCTGCT
GCTGCTCACTCCGCCTTCGCTGCCGACATGAGCCTGGGAGCTGAGAACTCT
GTGGCCTACTCAAACAACCTCCATCGCCATCCCCACCAACTTCACTATCAGC
GTCACCACTGAAATCCTGCCAGTGAGCATGACCAAGACTTCTGTGCGACTGC
ACCATGTACATCTGCGGAGACAGCACTGAGTGCTCTAACCTGCTGCTGCAG
TACGGTTCTTTCTGCACCCAGCTGAACCGCGCTCTGACTGGCATCGCCGTG
GAGCAGGACAAGAACACCCAGGAAGTCTTCGCTCAGGTGAAGCAGATCTA
CAAGACTCCTCCCATCAAGGACTTCGGTGGCTTCAACTTCTCCCAGATCCT
GCCTGACCCAGCAAGCCATCTAAGAGGTCATTCATCGAGGACCTGCTGTT
CAACAAGGTGACCCTGGCTGACGCCGGCTTCATCAAGCAGTACGGAGACT
GCCTGGGTGACATCGCTGCCAGAGACCTGATCTGCGCTCAGAAGTTCAAC
GGACTGACCGTCCTGCCACCTCTGCTGACTGACGAAATGATCGCTCAGTAC
ACCTCTGCTCTGCTGGCTGGTACCATCACTTCTGGCTGGACTTTCGGAGCT
GGTGCTGCCCTGCAGATCCCTTTTCGCTATGCAGATGGCCTACCGTTTCAACG
GCATCGGAGTCACTCAGAACGTGCTGTACGAGAACCAGAAGCTGATCGCT
AACCAGTTCAACAGCGCCATCGGAAAGATCCAGGACTCACTGTCCAGCAC
TGCTTCTGCTCTGGGCAAGCTGCAGGACGTGGTCAACCAGAACGCTCAGG
CCCTGAACACTCTGGTGAAGCAACTGTCTTCAAACCTTCGGAGCTATCTCCA
GCGTCCTGAACGACATCCTGTCCCGCCTGGACAAGGTCGAGGCCGAAGTG
CAGATCGACCGCCTGATCACCGGTCGTCTGCAGTCACTGCAGACCTACGTG
ACTCAGCAGCTGATCAGGGCTGCCGAGATCAGAGCTTCCGCCAACCTGGC
TGCCACTAAGATGTCAGAATGCGTGCTGGGACAGTCCAAGCGTGTCGACTT
CTGCGGCAAGGGCTACCACCTGATGTCATTCCCCCAGTCCGCTCCACACGG
TGTGGTCTTCCTGCACGTCACCTACGTGCCAGCCCAGGAAAAGAACTTCAC
CACTGCTCCTGCCATCTGCCACGACGGCAAGGCTCACTTCCCCCGCGAGG
GAGTCTTCGTGAGCAACGGTACCCACTGGTTCGTGACTCAGCGTAACTTCT
ACGAACCACAGATCATCAACCTGACAACACCTTCGTCTCTGGCAACTGCG
ACGTGGTCATCGGAATCGTCAACAACACTGTGTACGACCCTCTGCAGCCCG
AGCTGGACAGCTTCAAGGAGGAACTGGACAAGTACTTCAAGAACCACACC
TCTCCTGACGTGGACCTGGGCGACATCTCAGGAATCAACGCTTCCGTGGTC

(continue)

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AACATCCAGAAGGAGATCGACAGGCTGAACGAAGTCGCCAAGAACCTGA
ACGAATCACTGATCGACCTGCAGGAGCTGGGCAAGTACGAACAGTACATC
AAGTGGCCCGGAGGTTCCGGCGGAAGCGGTGGCTCTGGAGGTTCAAGGCG
GATCCACCTGCCCTCCTTGCCCAGCTCCTGAACTGCTGGGTGGCCCTTCCG
TGTTCTGTTCCTCCCAAGCCCAAGGACACTCTGATGATCAGCAGAACCC
CAGAAGTGACTTGCGTGGTCGTGGACGTCTCTCACGAGGACCCTGAAGTC
AAGTTCAACTGGTACGTGGACGGCGTCGAAGTGCACAACGCTAAGACCAA
GCCCCGCGAGGAACAGTACAACAGCACCTACCGTGTCTGTCTGTCTGA
CTGTGCTGCACCAGGACTGGCTGAACGGCAAGGAGTACAAGTGCAAGGTG
TCAAACAAGGCTCTGCCCCGCCCAATCGAGAAGACCATCTCCAAGGCCAA
GGGCCAGCCAAGGGAACCTCAGGTCTACACTCTGCCACCTTCAAGAGAGG
AAATGACCAAGAACCAGGTCTCCCTGACTTGCTGGTGAAGGGCTTCTACC
CTTCAGACATCGCTGTGGAGTGGGAATCCAACGGACAGCCCGAGAACAAC
TACAAGACCACTCCCCCAGTGCTGGACAGCGACGGTTCTTTCTTCCTGTAC
AGCAAGCTGACCGTCGACAAGTCTAGGTGGCAGCAGGGCAACGTCTTCTC
TTGCTCAGTGATGCACGAAGCTCTGCACAACCACTACACTCAGAAGTCCCT
GAGCCTGTCTCCTGGCAAGTAACTCGAGGCATGCGGTACCAAGCTTGTCGA
GAAGTACTAGAGGATCATAATCAGCCATACCACATTTGTAGAGGTTTTACTT
GCTTTAAAAACCTCCCACACCTCCCCTGAACCTGAAACATAAATGATGCAT
GTGTGGTACTGTATGCAGCTATATGTACATTAGCATAGCATCACAATTCACAA
TAAGGCATTTTTCCATGCATTCCAGTGTGATGGTCCAGCTCATCATGTACTAT
CAGTTGATCAGATCATGCTGACCTAGAATCCGAACCGATAGTGATC

FIG.14

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AAGAAATTTACTGTTTTTCGTAACAGTTTTTGTAATAAAAAAACCTATAAATAT
TCCGGATTATTCATACCGTCCCACCATCGGGCGCGGATCCCGGTCCGAAGC
GCGCGGAATTCATGCTGCTGGTCAACCAGAGCCACCAGGGATTCAACAAG
GAGCACACTTCCAAGATGGTGAGCGCTATCGTGCTGTACGTCCTGCTCGCT
GCTGCTGCTCACTCTGCTTTCGCTGCTGACGTCAACCTCACCCTAGGACC
CAGCTGCCTCCCGCTTACACCAACTCATTCACTAGGGGTGTGTACTACCCT
GACAAGGTGTTTCAAGATCCAGCGTCCTGCACTCCACTCAGGACCTGTTTCTG
CCCTTCTTCAGCAACGTCACCTGGTTCCACGCTATCCACGTGTCCGGCACC
AACGGAATAAGAGGTTCGACAACCCAGTCCTGCCTTTCAACGACGGCGT
GTACTTCGCCTCTACCGAGAAGTCAAACATCATCAGAGGTTGGATCTTCGG
CACCCTCTGGACTCCAAGACTCAGAGCCTGCTGATCGTCAACAACGCTAC
CAACGTGGTCATCAAGGTGTGCGAGTTCCAGTTCTGCAACGACCCTTTCCT
GGGAGTCTACTACCACAAGAACAACAAGTCTTGGATGGAGTCAGAGTTCC
GCGTCTACTCTTCAGCCAACAACCTGCACTTTCGAGTACGTGTCTCAGCCCT
TCCTGATGGACCTGGAAGGCAAGCAGGGCAACTTCAAGAACCTGCGCGAG
TTCGTGTTCAAGAACATCGACGGTACTTCAAGATCTACTCCAAGCACACC
CCTATCAACCTGGTCCGTGACCTGCCCCAGGGTTTCAGCGCTCTGGAGCCT
CTGGTGGACCTGCCCATCGGCATCAACATCACCCGCTTCCAGACTCTGCTG
GCTCTGCACCGTTTCTACCTGACTCCAGGCGACTCCAGCTCTGGATGGACT
GCTGGTGCTGCTGCTTACTACGTGGGCTACCTGCAGCCTAGGACCTTCCTG
CTGAAGTACAACGAAAACGGAACCATCACAGACGCTGTGGACTGCGCTCT
GGACCCACTGTCCGAAACCAAGTGCACTCTGAAGAGCTTCACCGTGGAGA
AGGGCATCTACCAGACTTCTAACTTCAGGGTCCAGCCAACCGAATCAATCG
TGAGATTCCCCAACATCACTAACCTGTGCCCATTTCGGAGAGGTCTTCAACG
CCACCCGTTTCGCTTCCGTGTACGCCTGGAACAGGAAGAGAATCTCTAACT
GCGTGGCTGACTACTCAGTCCTGTACAACTCAGCCTCCTTCAGCACCTTCA
AGTGCTACGGTGTGTCTCCTACTAAGCTGAACGACCTGTGCTTCACCAACG
TGTACGCTGACTCATTCGTCATCAGGGGCGACGAGGTGAGACAGATCGCTC
CCGGACAGACTGGCAAGATCGCCGACTACAACCTACAAGCTGCCAGACGAC
TTCACCGGTTGCGTCATCGCCTGGAACCTCCAACAACCTGGACAGCAAAGT
GGGTGGCAACTACAACCTACCTGTACCGCCTGTTCCGTAAGTCCAACCTGAA
GCCATTTCGAGAGGGACATCTCTACTGAAATCTACCAGGCTGGCTCAACCCC
TTGCAACGGCGTCGAGGGATTCAACTGCTACTTCCCACTGCAGAGCTACGG
ATTCCAGCCTACTAACGGCGTGGGATACCAGCCCTACAGAGTGGTCGTGCT
GTCCTTCGAACTGCTGCACGCCCCAGCTACTGTGTGCGGACCTAAGAAGA

(continue)

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GCACCAACCTGGTGAAGAACAAGTGCGTCAACTTCAACTTCAACGGTCTG
ACCGGTACTGGCGTCCTGACCGAGTCTAACAAGAAGTTCCTGCCATTCCAG
CAGTTCGGTCGCGACATCGCTGACACTACCGACGCCGTGCGTGACCCACA
GACCCTGGAAATCCTGGACATCACTCCATGCTCTTTTCGGAGGTGTGTCACT
CATCACTCCTGGCACCAACACTTCAAACCAGGTGGCCGTCCTGTACCAGGA
CGTCAACTGCACCGAGGTGCCTGTGCGCATCCACGCTGACCAGCTGACCC
CCACTTGGCGCGTCTACTCAACCGGTTCCAACGTGTTCCAGACTCGTGCTG
GCTGCCTGATCGGAGCCGAGCACGTGAACAACCTACGAATGCGACATCC
CCATCGGAGCTGGTATCTGCGCCTCCTACCAGACCCAACTAACAGCCCAC
GCAGGGCTCGCGGCGGAAGCGGTGGCTCTGGAGGTTCAAGGCGGATCCGGT
GGCAGCACTTGCCACCTTGCCAGCTCCAGAACTGCTGGGAGGTCCAAG
CGTGTTCTGTTCCTCCTAAGCCTAAGGACACCCTGATGATCTCCCGTACC
CCTGAGGTCACTTGCGTCGTGGTCGACGTGAGCCACGAGGACCCCGAAGT
CAAGTTCAACTGGTACGTGGACGGCGTGGAAGTCCACAACGCTAAGACCA
AGCCCCGCGAGGAACAGTACAACCTCCACTTACCGTGTGGTCAGCGTGCTG
ACCGTCCTGCACCAGGACTGGCTGAACGGAAAGGAATACAAGTGCAAGGT
CTCTAACAAGGCCCTGCCTGCTCCCATCGAAAAGACTATCTCAAAGGCTAA
GGGTCAGCCCAGGGAGCCACAGGTGTACACCCTGCCTCCCTCTAGAGAGG
AAATGACCAAGAACCAGGTCTCACTGACTTGCTGGTGAAGGGATTCTACC
CATCCGACATCGCCGTGGAGTGGGAAAGCAACGGTCAGCCTGAGAACAAC
TACAAGACCACTCCACCTGTCCTGGACTCTGACGGTTCATTCTTCCTGTACT
CTAAGCTGACTGTGGACAAGTCACGTTGGCAGCAGGGCAACGTGTTCTCT
TGCTCAGTCATGCACGAAGCTCTGCACAACCACTACACCCAGAAGTCCCTG
AGCCTGTCTCCTGGCAAGTAACTCGAGGCATGCGGTACCAAGCTTGTGAG
AAGTACTAGAGGATCATAATCAGCCATACCACATTTGTAGAGGTTTTACTTG
CTTTAAAAAACCTCCACACCTCCCCCTGAACCTGAAACATAAAATGAATG
CAATTGTTGTTGTTAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGC
AATAGCATCACAATTTACAAATAAAGCATTTTTTTTCACTGCATTCTAGTT
GTGGTTTGTCCAACTCATCAATGTATCTTATCATGTCTGGATCTGATCACTG
CTTGAGCCTAGGAGATCCGAACCAGATAAGTGAAATCTAGTTCCAAACTAT
TTTGTCATTTTTTAATTTTCGTATTAGCTTACGACGCTACACCCAGTACCCATC
TATTTTGTCACTCTTCCCTAAATAATCCTTAAAAACTCCATTTCCACCCCTCC
CAGTTCCCAACTAATTTTGTCCGCCACACAGGGGCATTTTTCTTCCTGTTA
TGTGAATTCCTGCAGCCCGGGAGGATCCACTAAGTTCTAGAGCGGCCGCCA
CGCGGTGGAGCTCCGGCTTTTGTGCGGTTACTGGAGGGTCAGTTGCGCG
CTTAGACGTATCATGGGTCGTAGCTGTTATCGCTGGCGTGCACCTGCACGA
GCTATGAGGAGGAGGAGACTTA

FIG. 15

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AAGAATTTTACTGTTTTTCGTAACAGTTTTGTATAAAAAAACCTATAAATATT
CCGGATTATTCATACCGTCCCACCATCGGGCGCGGATCCCGGTCCGAAGCG
CGCGGAATTCATGCTGCTGGTGAACCAGTCCCACCAGGGATTCAACAAGG
AGCACACTAGCAAGATGGTCTCTGCTATCGTGCTGTACGTCCTGCTGGCTG
CTGCTGCTCACAGCGCCTTCGCTGCCGACGTGAACCTCACCCTAGGACCC
AGCTGCCTCCCGCTTACACCAACTCTTTCCTAGGGGTGTCTACTACCCAG
ACAAGGTGTTTCAAGATCCAGCGTCCTGCACAGCACTCAGGACCTGTTCTGCT
CTTTCTTCTCTAACGTGACCTGGTTCACGCCATCCACGTCTCCGGTACCAA
CGGCACTAAGCGCTTCGACAACCCAGTCCTGCCTTTCAACGACGGCGTGTA
CTTCGCTTCAACCGAAAAGTCCAACATCATCCGTGGATGGATCTTCGGTAC
CACTCTGGACAGCAAGACTCAGTCTCTGCTGATCGTGAACAACGCCACCA
ACGTGGTCATCAAGGTCTGCGAGTTCCAGTTCTGCAACGACCCCTTCCTGG
GAGTGTACTACCACAAGAACAACAAGTCATGGATGGAGTCCGAGTTCCGC
GTGTACTCTTCAGCTAACAACCTGCACTTTTCGAGTACGTCAGCCAGCCATTC
CTGATGGACCTGGAAGGAAAGCAGGGTAACTTCAAGAACCTGAGGGAGTT
CGTGTTCAAGAACATCGACGGTTACTTCAAGATCTACAGCAAGCACACCCC
CATCAACCTGGTGAGAGACCTGCCACAGGGATTCTCTGCTCTGGAACCCCT
GGTCGACCTGCCAATCGGTATCAACATCACCCGCTTCCAGACTCTGCTGGC
TCTGCACCGTTCTTACCTGACTCCTGGCGACTCCAGCTCTGGATGGACTGC
TGGAGCTGCTGCTTACTACGTGGGATACCTGCAGCCAAGGACCTTCCTGCT
GAAGTACAACGAGAACGGTACCATCACTGACGCCGTGGACTGCGCTCTGG
ACCCACTGTCAGAAACCAAGTGCACCTCTGAAGTCCTTACCGTCGAGAAG
GGTATCTACCAGACTAGCAACTTCAGGGTCCAGCCTACCGAATCTATCGTG
AGATTCCCAAACATCACTAACCTGTGCCCTTTTCGGCGAGGTGTTCAACGCC
ACCAGATTCGCTTCCGTCTACGCCTGGAACAGGAAGAGAATCAGCAACTG
CGTGGCTGACTACTCTGTCCTGTACAACAGCGCCTCTTTCTCAACCTTCAA
GTGCTACGGCGTGTCACCTACTAAGCTGAACGACCTGTGCTTCACCAACGT
GTACGCCGACTCCTTCGTCATCAGGGGAGACGAGGTGAGACAGATCGCTC
CTGGCCAGACTGGAAAGATCGCCGACTACAACCTACAAGCTGCCCCGACGAC

(continue)

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TTCACCGGTTGCGTGATCGCTTGGAACAGCAACAACCTGGACTCTAAGGTC
GGTGGCAACTACAACCTACCTGTACCGCCTGTTCCGTAAGAGCAACCTGAAG
CCCTTCGAGAGGGACATCAGCACTGAAATCTACCAGGCCGGATCTACCCCA
TGCAACGGTGTGGAAGGCTTCAACTGCTACTTCCCTCTGCAGTCTTACGGT
TTCCAGCCCCTAACGGTGTCGGCTACCAGCCATACAGAGTGGTCGTGCTG
AGCTTCGAGCTGCTGCACGCCCCTGCTACTGTGTGCGGTCCCAAGAAGTCT
ACCAACCTGGTGAAGAACAAGTGCGTCAACTTCAACTTCAACGGCCTGAC
CGGAACCTGGTGTGCTGACCGAATCAAACAAGAAGTTCCTGCCTTTCCAGC
AGTTCGGCCGCGACATCGCTGACACCACTGACGCCGTCCGTGACCCACAG
ACCCTGGAGATCCTGGACATCACTCCTTGCTCATTCGGAGGTGTGTCCGTC
ATCACTCCCGGAACCAACACTTCCAACCAGGTGGCTGTCCTGTACCAGGAC
GTGAACCTGCACTGAGGTGCCTGTGGCTATCCACGCTGACCAGCTGACCCCA
ACTTGCGCGTCTACTCAACCGGCTCCAACGTGTTCCAGACTCGTGCTGGT
TGCTGATCGGCGCCGAGCACGTCAACAACAGCTACGAATGCGACATCCCT
ATCGGCGCTGGAATCTGCGCCTCTTACCAGACCCAGACTAACAGCCCCCGC
AGGGCTAGGTCTGTGGCTTCCCAGAGCATCATCGCTTACACCATGTCACTG
GGTGCTGAAAACCTCCGTCGCCTACAGCAACAACCTCTATCGCCATCCCAACC
AACTTCACTATCTCAGTCACCACTGAGATCCTGCCTGTGAGCATGACCAAG
ACTTCTGTCGACTGCACTATGTACATCTGCGGCGACAGCACCGAATGCTCT
AACCTGCTGCTGCAGTACGGTTCCTTCTGCACCCAGCTGAACCGTGCTCTG
ACTGGCATCGCCGTGGAGCAGGACAAGAACTCAGGAAGTGTTGCTCA
GGTCAAGCAGATCTACAAGACCCACCTATCAAGGACTTCGGCGGATTCAA
CTTCTCCAGATCCTGCCAGACCCTTCAAAGCCCTCCAAGCGCAGCTTCAT
CGAAGACCTGCTGTTCAACAAGGTGACCCTGGCCGACGCTGGATTTCATCA
AGCAGTACGGAGACTGCCTGGGTGACATCGCCGCTCGTGACCTGATCTGCG
CTCAGAAGTTCAACGGTCTGACCGTCCTGCCCCCACTGCTGACTGACGAG
ATGATCGCCCAGTACACTTCAGCCCTGCTGGCTGGTACCATCACTTCTGGAT
GGACCTTCGGTGCTGGTGCTGCTCTGCAGATCCCATTCGCTATGCAGATGG
CCTACCGTTTCAACGGAATCGGTGTGACCCAGAACGTCCTGTACGAAAACC
AGAAGCTGATCGCTAACCAGTTCAACAGCGCCATCGGCAAGATCCAGGAC
AGCCTGTCATCCACTGCCTCTGCTCTGGGAAAGCTGCAGGACGTCGTGAA
CCAGAACGCCAGGCTCTGAACACCCTGGTGAAGCAGCTGAGCTCTAACT
TCGGAGCTATCTCATCCGTCCTGAACGACATCCTGTCTCGCCTGGACAAGG
TGGAGGCCGAAGTCCAGATCGACCGCCTGATCACTGGTCGTCTGCAGTCA

(continue)

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CTGCAGACCTACGTGACTCAGCAGCTGATCAGGGCCGCTGAAATCAGAGC
CTCCGCTAACCTGGCCGCTACCAAGATGTCAGAGTGCGTGCTGGGACAGTC
CAAGCGTGTCGACTTCTGCGGCAAGGGATACCACCTGATGTCATTCCCACA
GTCCGCTCCTCACGGCGTCGTGTTCTGTCACGTGACCTACGTCCCTGCCCA
GGAGAAGAAGTTCACCACTGCCCCCGCTATCTGCCACGACGGCAAGGCTC
ACTTCCCTAGGGAAGGAGTGTTTCGTCTCAAACGGTACCCACTGGTTCGTGA
CTCAGAGAACTTCTACGAGCCCCAGATCATCACCCTGACAACACTTTTCG
TCTCCGGCAACTGCGACGTCGTGATCGGAATCGTGAACAACACCGTCTACG
ACCCCTGCAGCCAGAACTGGACTCATTCAAGGAGGAACTGGACAAGTAC
TTCAAGAACCACACCTCCCCAGACGTGGACCTGGGCGACATCTCAGGAAT
CAACGCTTCCGTCGTGAACATCCAGAAGGAGATCGACCGCCTGAACGAAG
TCGCCAAGAACCTGAACGAGAGCCTGATCGACCTGCAGGAGCTGGGCAAG
TACGAACAGTACATCAAGTGGCCTGGTGGCTCTGGAGGTTTCAAGGCGGATCC
GGTGGCAGCGGAGGTTCAACCTGCCCTCCCTGCCCTGCTCCAGAGCTGCT
GGGCGGACCTTCTGTGTTCTGTTCCACCTAAGCCCAAGGACACCCTGAT
GATCAGCCGTACCCCAAGAAGTGACTTGCGTCGTGGTTCGACGTCTCTCACGA
GGACCCTGAAGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTCCACA
ACGCTAAGACCAAGCCTCGCGAGGAACAGTACAACCTCAACTTACCGTGTG
GTCTCCGTGCTGACCGTCCCTGCACCAGGACTGGCTGAACGGCAAGGAGTA
CAAGTGCAAGGTGTCAAACAAGGCCCTGCCTGCTCCCATCGAAAAGACTA
TCTCCAAGGCCAAGGGACAGCCTAGGGAGCCCCAGGTCTACACCCTGCCC
CCATCAAGAGAGGAAATGACCAAGAACCAGGTCTCCCTGACTTGCCTGGT
GAAGGGTTTCTACCCCTCAGACATCGCTGTGGAGTGGGAATCCAACGGCC
AGCCAGAAAACAACCTACAAGACCACTCCTCCCGTGCTGGACTCAGACGGC
TCCTTCTTCCTGTACAGCAAGCTGACTGTCGACAAGTCTCGCTGGCAGCAG
GGAAACGTGTTCTCTTGCTCAGTCATGCACGAGGCTCTGCACAACCACTAC
ACCCAGAAGTCCCTGAGCCTGTCTCCCGGCAAGTAA

FIG.16