

FIGURE 1A

ATGAAGCTTTCCACCATCCTCTTCACAGCCTGCGCTACCCCTGGCTGCCGCCAGCAGGGAGCCT
CTCGACCCGGACCCCGAGATGCCCAGGCTCACCCCGGACGACCTCGAGCTGTGCCACCCAGTGTG
ACGTGCCCCCAACTCTCGATTGACTGTGCCCCGACAAGGCCATCACCCAGGAGCAGTGCGAGG
CCCGAGGCTGTTGTTACATCCCCGCTAAGCAGGGCCTGCAGGGCGCTCAGATGGGGCCAGCCCTGGT
GTTTCTTCCCCCCTCTTACCCCTCCTACAAGCTGGAGAACCTGTCCTCTTCGGAGATGGGCTACAC
CGCCACCTTGACCCGAACCACCCCACTTTTTCCCAAGGACATCTTGACCTGCGACTGGACGTG
ATGATGGAGACCGAGAACCGACTGCACCTTACCATCAAGGACCCCGCCAACCGACGATACGAGGT
GCCCCCTGGAGACCCCCACGTGCACTCTCGAGCCCCCTCCCCCTGTACTCTGTGGAGTTCTCTGAG
GAGCCCTTCGGCGTGATCGTGCGACGACAGCTGGACGGCCGAGTGCTGCTGAACACCACCGTGGCC
CCCCTGTTCTTCGCCGACCAGTTCCTGCAGCTGTCTACCTCTCTGCCCTCTCAGTACATCACCGGCCT
GGCCGAGCACCTGTCCCCCTGATGCTGTCCACCTCTTGGAATCAGATCAGATCAGATCAGATCAGAT
CCTGGCCCCCACCCCGGTGCCAACCTGTACGGCTCTCACCCCTTCTACCTGGCCCTGGAGGACGGC
GGCTCTGCCACGGCGTGTTTCTGCTGAACCTTAACGCCATGGACGTGGTGCTGCAGCCCTCTCCCG
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GCCCCACTTCCCCCTGGACGTGCAATGGAACGACCTGGACTACATGGACTCTCGACGAGACTTCACC
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GTGTCTAACTTACCTACTCTCCCGACACCAAGGTGCTGGACATCTGTGTGCTCTGCTGATGGGCG
AGCAGTTCCTGGTGTCTTGGTGTAAAC

FIGURE 1B

MKLSTILFTACATLAAAQQGASRPGPRDAQAHPGRPRAVPTQCDVPPNSRFDCAFDK
AITQEQCEARGCCYIPAKQGLQGAQMGPWCFFPPSYPSYKLENLSSSEMGYTATLTRT
TPTFFPKDILTLRLDVMMETENRLHFTIKDPANRRYEVPLETPHVHSRAPSPLYSVEFSE
EPFGVIVRRQLDGRVLLNTTVAPLFFADQFLQLSTSLPSQYITGLAEHLSPLMLSTSWTR
ITLWNRDLAPTPGANLYGSHPPFYLALEDGGSAGHVFLLSNAMDVVLQSPALSWRST
GGILDVYIFLGPEPKSVVQQYLDVVGYPFMPPYWGLGFHLRCRWGYSSTAITRQVVENM
TRAHFPLDVQWNDLDYMDSRDFTFNKDGFRDFPAMVQELHQGGRRYMMIVDPAISS
SGPAGSYRPHYDEGLRRGVFITNETGQPLIGKVWPGSTAFPDTNPTALAWWEDMVAEF
HDQVPFDGMWIDMNEPSNFIRGSEDGCPNNELENPPYVPGVVGGTLQAATICASSHQF
LSTHYNLHNLYGLTEAIAASHRALVKARGTRPFVISRSTFAGHGRYAGHWTGDVWSSWE
QLASSVPEILQFNLLGVPLVGADVCGFLGNTSEELCVRWTLQGAIFYPFMRNHNLSLLSLP
QEPYSFSEPAQQAMRKALTLRYALLPHLYTLFHQAHVAGETVARPLFLEFPKDSSTWT
VDHQLLWGEALLITPVLQAGKAEVTGYFPLGTWYDLQTPVVEALGSLPPPPAAPREPAI
HSEGQWVTLPAPLDTINVHLRAGYIPLQGPGLTTTESRQQPMALAVALTKGGEARGEL
FWDDGESLEVLERGAYTQVIFLARNNTIVNELVRVTSEGAGLQLQKVTVLGVATAPQQ
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FIGURE 2

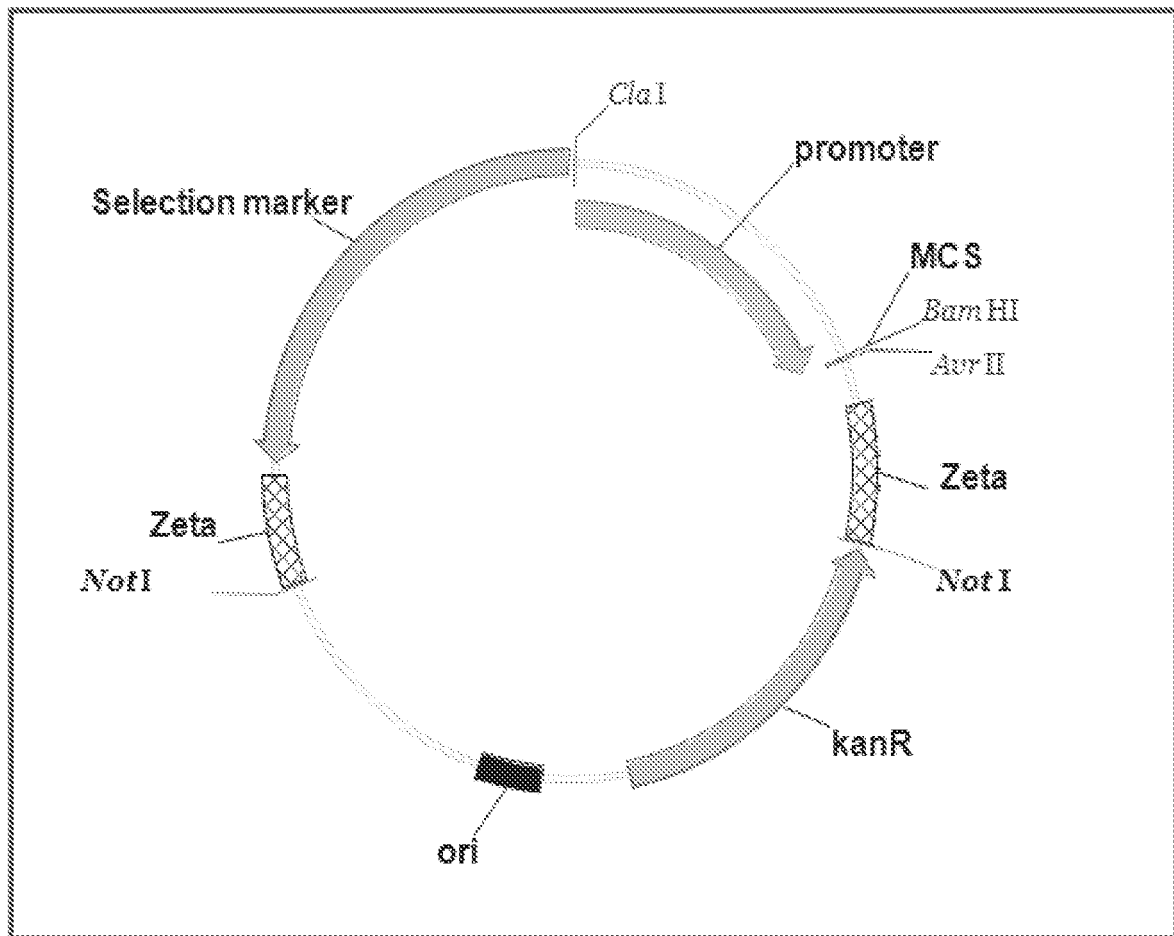


FIGURE 3A

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FIGURE 3B

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FIGURE 3C

MYSHFENNEPVAKRVNNLFTDRLRQFTSDGEYRSLNLPAYERERLDGKNHVAIETYAVSD
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TPVALNTMPWSRTEVVAVPQPHWDATVELAEGVEIQEDSGNALVMMSESGPVVTTQSVDL
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AAYNFENNPLRVKYVGLSEVSTKQAFSLKGPANLVLSQVKRAEVDRSKKSTNVILRVYEAL
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FIGURE 4

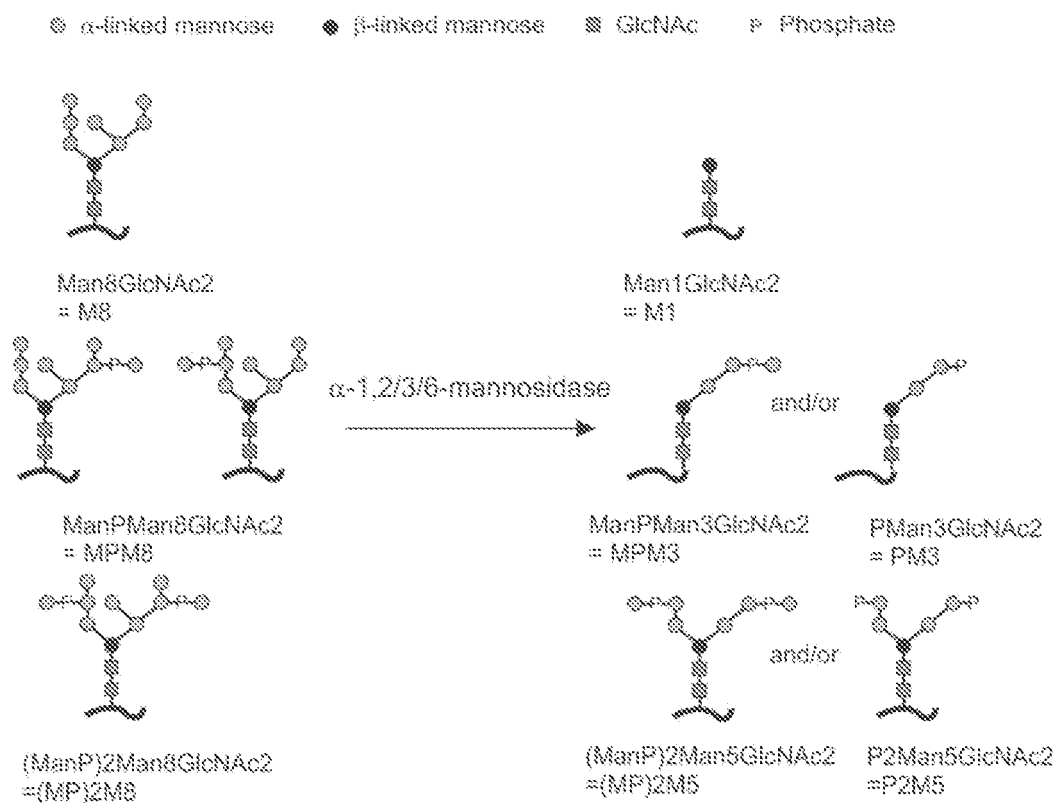


FIGURE 5

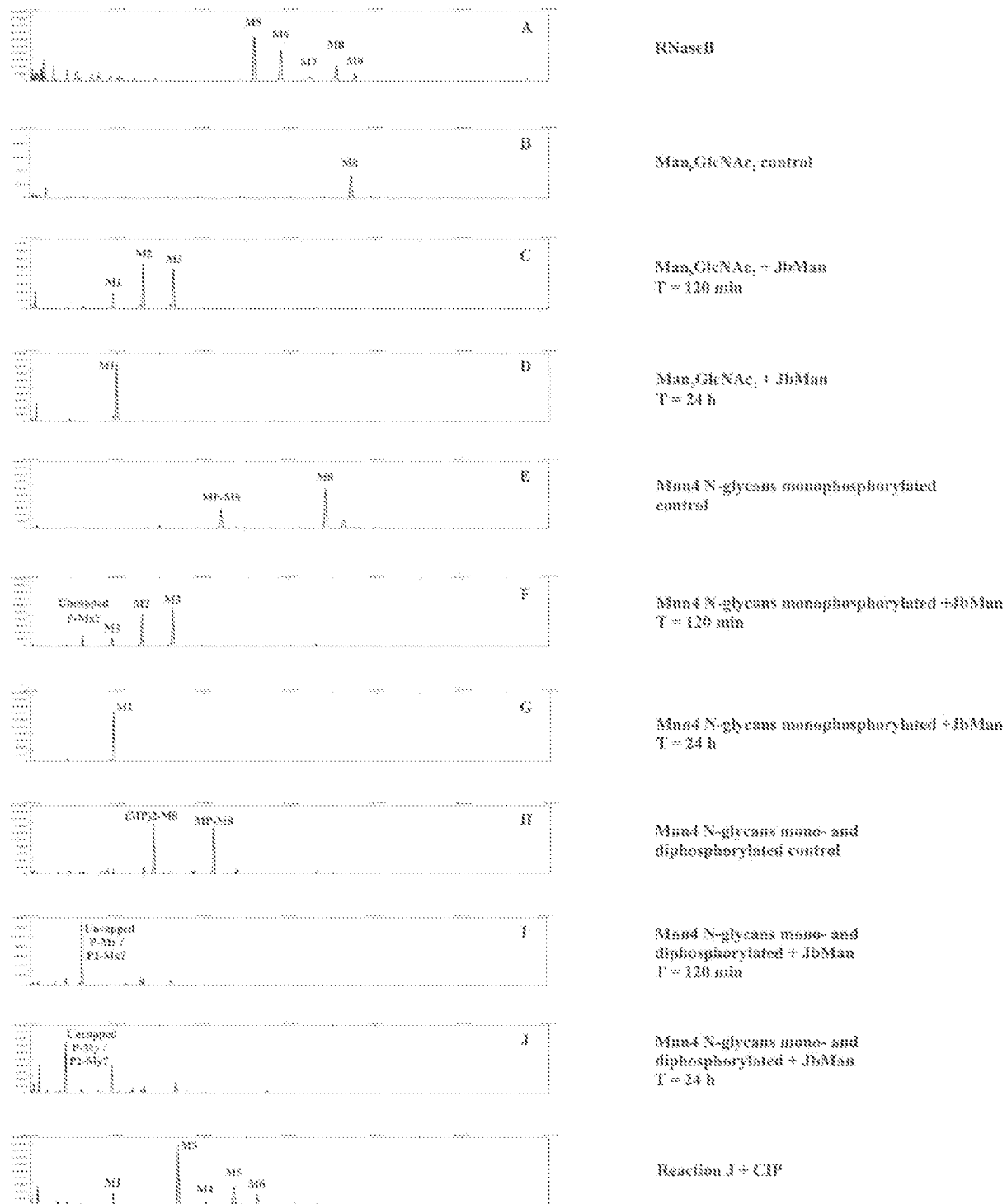


FIGURE 6

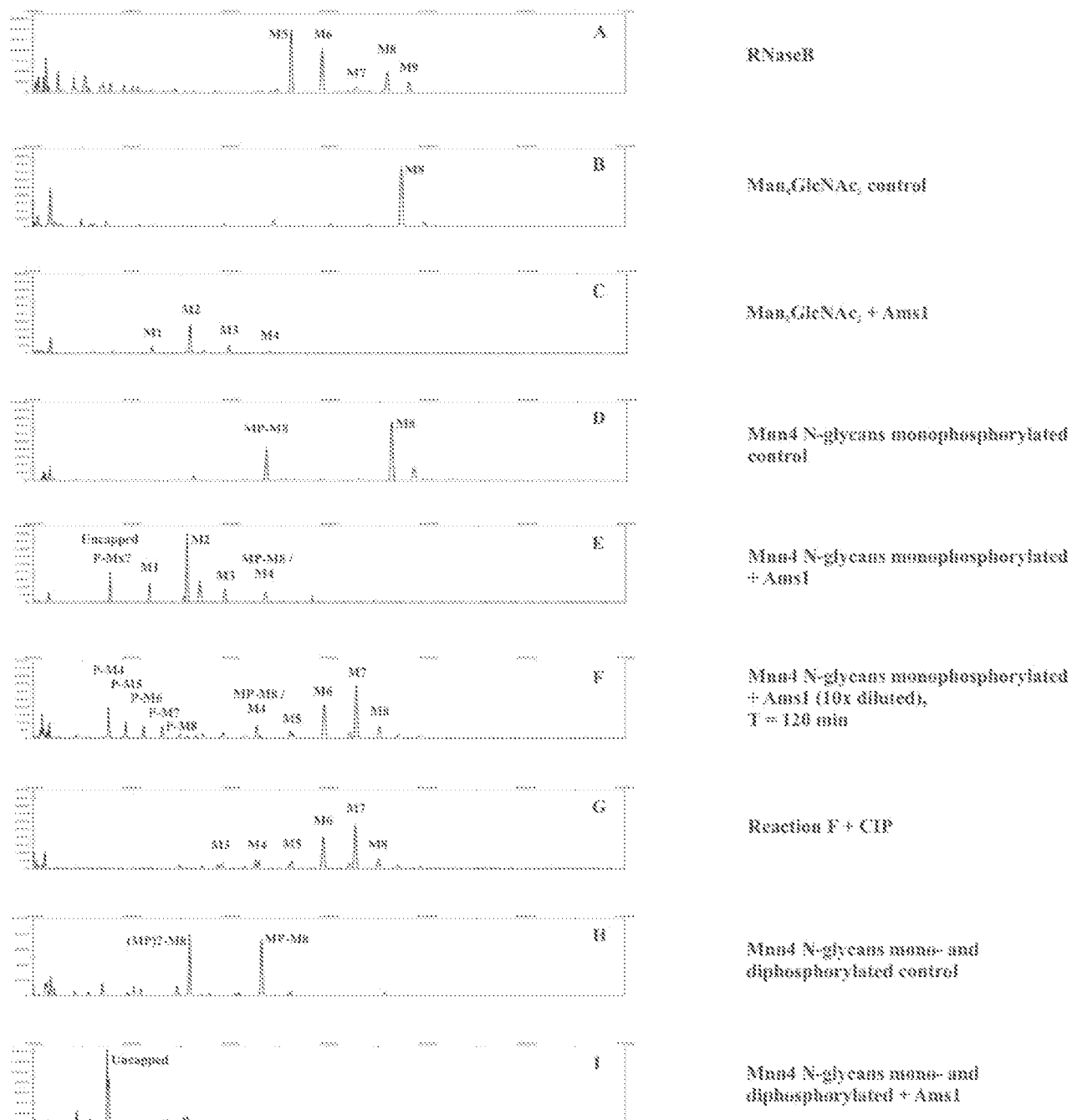
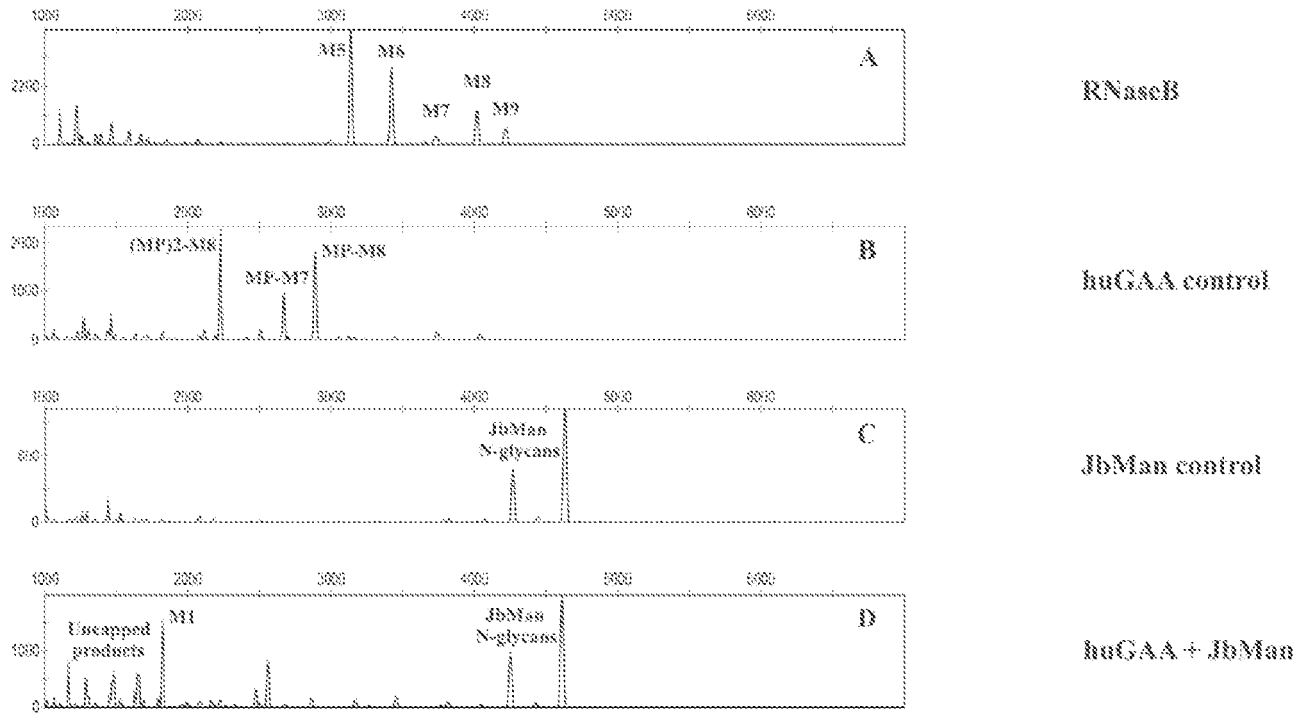


FIGURE 7



[illegible]

FIGURE 8A (CONTINUED)

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FIGURE 8B

ALAVVGLAPATAASAAPEPPSADYASLVDVFGTEGDFGNDMPAAQAPNGLAKVNPRTT
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GGGEFTPPLKTKVYRLDPRGMLPTMDNDAGTMSTM FVAAAVGLFPVTAGSSQFQVGSFP
FDSTTITYDDGSAFTVTADGVSEDAFYVQSATLDGATFGNTWVDYATVVGADLAFR MG
EQPSDWGTD TAPAFSMSTATDEPAEGPRVSAEPTTVQTDG GGDATVTLTLDGARLAA
PAGTDLVTSGAASVVGLEPDGVTA AVTVASPTALT VSLTGTASADARFFVHLRDAALADG
VAAASLQGQGVSVRSPLRLSVASAERDALAALVDDAVLVRHGNYS SVTFDRFSTALTKA
QEALGDEAATSIALRFAADRLGAAADALDLTGGGYRTLEAEQSEAWSGGELKNEANSSS
GNLGGVRSGSWVQYRDMTFETAAGDTPPRFLT VRYDTSFAPTDTPSTVRVHAGDVSGPV
VATVDLKGTS GWGKYTEVTAE LGDVQALVDAQVVT FELLAPSGRSWVGNFDWFRFSAED
PAAPGQPGESPTVTIEAEDWTASSGRGLKKESSWTSGPVTNVGGTADGDWIA YGEVDL
GELPLGELSVHYVHNSNRSGNNSALSVYLDAFD PANPGE PFVTVPLPTTGSSWTADGTA
TVVLPETVQGT HEVFVRLSTEPYADHPYVANLDSLTFAPGGPTSVVVESEAWTSNSGRG
LKNESSTWTSGPVTNVGGTADGDW LAYGEIDLGSAALDQLSVHYVHNSNRSGRNSALSV
YLDAFD PANPGE PFVTVPLANTGSSWTTDGTAVVDLPSTVRGKHQVWVRLSTEAYADHP
YVANLDSMRFFTDAYDVEVPPTDTAALAAVVDAAGTPEAEIARYGRIDARVFTRELA AA
RSVLADAGATQAQADERARRRLGLATDQLVPAERRRLENLVASAEALTDEGYSPESWQAF
RTALAAATGTLDDAAASDEALHDARLALQGAVDALEEPADVVLVEVEVSPRCLAGKPYV
AVRAVNVSDAAVDVELASSLGTRSFVGVAPGASAYQSFAARSATGDLDVTVTATGADGT
QTVEQVVTVPSCS (SEQ ID NO: 7)

FIGURE 8C

APEPPSADYASLVDVFGTEGDFGNDMPAAQAPNGLAKVNPRTTPGRNNTGYDYAQSКИSGF
THTNLDGVGGSGGGDLLVVPTSGSYTARPGTGTIAHPFSHDDDEDAGPGFYSVGLGNVAGTD
GAITGAPGTIEAEVAAATRSQVHRYAFPAGSTPSLVVDLETNNTSRRSSSVQVETRADGTVE
LSGQVTGYFYNAAYTLYYTARTLQPATVQTWGDDDRLVDATAQDGVDTGAILTFDPADAGEI
GLQVTLSPVSVEQARIDQQVELGDLSEFDAIRDRTAEWNATLGRVAIDASTATDPTGELQRL
FYTHLYRMFAMPNMNATSTSGTYRGVDGAVHAAQGFTYYDSWATWDDFRKFYSVIAYIDPALYR
DMVQSLVYLFADAEATGTGGGLGGFVHVSPTVRWERSVSVVADAIKGFDFDRLDEAYPAL
QRLVGQYSADELRRGYVAGNPGASVQRGYDQYGLSVIADELGLTEEAETLREQASWPIEKLT
KPGAWTAADGTQVGLLTTPAADGSWQSADHAKFEAAGLYQGTLWQYHWYDAYDMDALVEAMG
GHEAARLGMRHMFGEHAPDDGKAMLHSHANEIDLQAPYLFNYTGEPSLTQKWARAIYTKETW
NRYIATGSSSAVPSGGGEFTPLKTKVYRLDPRGMLPTMDNDAGTMSTMFVAAAVGLFPVTA
GSSQFQVGSPPFDSTTITYDDGSAFTVTADGVSEDAFYVQSATLDGATFGNTWVDYATVVGG
ADLAFRMGEQPSDWGTDTPAFMSSTATDEPAEGPRVSAEPTTVQTDGGALDATVTTLTDG
ARLAAPAGTDLVTSGAASVVGLPDGVTA AVTVASPTALT VSLTGTASADARFFVHLRDAALA
DGVAASLQGGQVSVRSPLRLSVASAERDALAALVDDAVLVVRHGNYSSTVDFRSTALTKAQ
EALGDEAATSIALRFAADRLGAAADALDLTG GGYRTLEAEQSEAWSGGELKNEANSSSGNLG
GVRSGSWVQYRDMTFETAAGDTPPRELT VRYDTSFAPTDT PSTVRVHAGDVSGPVVATVDLK
GTSGWGKYTEVTAELGDVQALVDAQVVT FELLAPSGRSWVG NFDWFRFSAEDPAAPGQPGES
PTVTIEAEDWTASSGRGLKKESSWTSGPVTNVGGTADGDWIA YGEVDL GELPLGELSVHYV
HNSNRSGNNSALSVYLD AFDPANPGEPFVT VPLPTTGSSWTADGTATVVL PETVQGT HEV FV
RLSTEPYADHPYVANLDSLTFAPGGPTS VVVESEAWTSNSGRGLKNESSTWTSGPVTNVGGT
ADGDWLAYGEIDLGSAALDQLSVHYVHNSNRSGRNSALSVYLD AFDPANPGEPFVT VPLANT
GSSWTTDGTAVVDLPSTVRGKHQVWVRLSTEAYADHPYVANLDSMRFFTDAYDVEVPPTDTA
ALAAVVDAAGTPEAEIARYGRIDARVFTRELAAARSVLADAGATQAQADERARRRLGLATDQL
VPAERRRLENLVASAEALTDEGYSPESWQAFRTALAAATGTLDAAASDEALHDARLALQGA
VDALEEPADVVLVEVEVSPRCLAGKPYVAVRAVNVSDAAVDVELASSLGTRSEVGVAPGASA
YQSFAARSATGDL DVTVTATGADGTQTVEQVVTVPSCS (SEQ ID NO:8)

FIGURE 9A

DsbA-6xHis-CcMan4 (107bp - 5494bp, direct) 5388bp from
pLSAHCcMan4

```
ATGAAAAAGATTTGGCTGGCGCTGGCTGGTTTAGTTTTAGCGTTTAGCGCATCGGCCGG
CCATCACCATCATCACCACGTGGGGCCCGGCTCGGACGAAGTGGATGCAGAACCGGGTG
ATTTTAGCAGCAGCTTTGAATCTGGCGATCCGGCAGCACTGCCGACCACCGTTGCAGAA
CGTGATGGTGCACCGTGGCAGGCAAATGTTGGTAGCTTTACCGCAGGTCTGCCTGGTAG
CGTTCTGGGTCAGCTGAAAGGTGTTACCGCAAGCGCACAGAATCTGCCGAATGAAGGTG
CAGCAAATCTGGCAGATGGTAGCAGCGGCACCAAATGGCTGGCATTTCGAAGCACCGGT
TGGGTTTCGTTATGAATTTGCAGAACCGGTTAGCTTTGTTGCATATACCATGACCAGCGG
TGATGATGCCCGCAGGTCTGTATCCGAAAACCTGGACCGTTGAAGGTAGCAATGATGGTT
CTACCTGGGCAGCACTGGATCGTCGTACCGATGAAGATTTTCCGAATCGTCAGCAGACC
CGTACCTTTGAACTGGAAGCACCGACCGCAGCATATACCTATCTGCGTCTGAATGTTAC
CGCAAATAGCGGTGATAGCATTGTTTCAGCTGGCAGGTTGGGATCTGAGCGCAGATCTGT
CTGCAGGTCCGAGCGCAGCACCGATGACCACCAAAGTTGGCACCGGTCCGCGTGTTAGC
TTTACCAATAAAGCCGGTGTTGGTTTTAGCGGTCTGCATAGCCTGCGTTATGATGGTAG
CCATCTGGCCGATGGTGAAACCTATGCAACCAATGTGCTGTATGATGATGTTGATGTTG
TGGTTGGTGAAGATACCCGTCTGAGCTATACCATTTTTTCCGGAACCTGCTGGATGATCTG
CAGTATCCGAGCACCTATGCAGCAGTTGATGTTCTGTTTACCGATGGCACCTATCTGAG
CGATCTGGGTGCACGTGATGCACATGAAACCGTTGCAACCGCACAGGCACAGGGTGAAG
GTAAAATTCTGTATGCCGATCAGTGGAATAGCGTTCTGTGTTGATCTGGGTGATGTTGCA
GAAGGTAAAACCGTTGATCAGGTTCTGCTGGGTTATGATAATCCGGGTGGTCATGCAGG
CACCAAATTTGCAGGTTGGCTGGATGATGTTGAAATTACCGCAGAACCGGCAACCATTG
ATGGTAGCTCACTGGCAAATTATGTTGATACCCGTCTGTCGTCGTCGTCGTCGTCGTCG
TTTAGCCGTGGTAATAATATCCCGCAACCGCAACCCCGAATGGTTTTAATTTTTGGAC
CCCGTATACCAATGCAAGCAGCCAGAGCTGGCTGTATGAATATCATAAAGCCAATAATG
CGAATAATAAACCAGTTCTGCAGGGTTTTGGTATTAGCCATGAACCGAGCCCGTGGATG
GGTGATCGTAATCAGCTGACCTTTCTGCCGAGCACCGCAAGCGGTACACCGGATGCAAC
CCTGAGCACCCGTGGTCTGGAATTTGATCATGCAGATGAAACCGCACGTCCGGATTATT
ATGGTGTGACCTTTACCAATGGTAGCGCAATTGAAGCAACCCCGACCGATCATGGTGCA
GTTCTGCGTTTTAGCTATCCGGGTGCAAAAGGTCATGTTCTGGTGGATAAAGTTGATGG
TAGCAGTAACTGACCTATGATCAGGCAACCGGCACCATTAGCGGTTGGGTTGAAAATG
GTAGCGGTCTGAGCGTTGGTTCGTACCCGTATGTTTGTGTCAGGCACCTTTGATCGTAGC
CCGACCGCAGTTGGCACAGCAGCAGGTAATCGTGCAGATGCACGTTTTGCAACCTTTGA
AACCAGCAGCGATAAAACCGTGGAAGTGCCTGTTGCAACCAGCTTTATTAGCCTGGATC
AGGCACGTAAAAATCTGGATCTGGAAGTTACCGGTAAAAACCTTTACCGAAGTTAAAGCA
GCAGCAGCACAGGCATGGAATGATCGTCTGGGTGTTATTGAAGTTGAAGGTGCAAGCGA
AGATCAGCTGGTTACCCTGTATAGCAATCTGTATCGCCTGAATCTGTATCCGAATAGCC
AGTTTGAAAATACCGGCACCGCACAGGAACCGGTTTTATCGTTACGCATCTCCGGTTAGC
GCAACCACCGGTAGCGCAACCGATAACCCAGACCAATGCCAAAATTGTGGATGGCAAAAT
TTATGTGAATAATGGCTTTTGGGATACCTATCGTACCGCATGGCCTGCATATAGCCTGC
TGTATCCGGAACCTGGCAGCAGAACTGGTTGATGGTTTTGTTTCAGCAGTATCGTGATGGT
GGTTGGATTGCACGTTGGAGCAGTCCGGGTTATGCAGATCTGATGACCGGTACAAGCTC
TGATGTTGCATTTGCAGATGCCTATCTGAAAGGTAGCCTGCCGACCGGTACAGCACTGG
AAGCATATGATGCAGCACTGCGTAATGCAACCGTTGCACCTCCGAGCAATGCAGTTGGT
```

FIGURE 9A (CONTINUED)

CGTAAAGGTCTGCAGACAAGCCCGTTTCTGGGTTTTACACCGGAAAGCACCCATGAAAG
CGTTAGCTGGGGTCTGGAAGGTCTGGTAAATGATTTTGGCATTTGGCAATATGGCTGCAG
CACTGGCAGAAGATCCGGCAACACCGGAAGAACGTCGTGAAACCCTGCGTGAAGAAAGC
GCATATTTTCTGGAACGTGCCACCCATTATGTTGAACTGTTGATCCGGAAGTGGATTT
TTTTGTTCCGCGTCATGAAGATGGTACATGGGCAGTTGATCCGGAACCTATGATCCGG
AAGCATGGGGTGGTGGTTATACCGAAACCAATGGCTGGAATTTTGCATTTTCATGCACCG
CAGGATGGTCAGGGTCTGGCAAATCTGTATGGTGGTAAACAGGGTCTGGAAGATAAACT
GGATGAATTTTTTAGCACACCGGAAAAAGGTGCAGGTAATGGTGGTATTCATGAACAGC
GTGAAGCACGTGATGTTTCGTATGGGTCACTGGGGTATGAGCAATCAGGTTAGCCATCAT
ATTCGCTGGCTGTATGATGCAGCCGGTGCTCCGAGCAAAGCACAGGAAAAAGTTCGCGA
AGTTACCCGTCGTCTGTTTGGTGGTAGCGAAATTGGTCAGGGTTATCCGGGTGATGAAG
ATAATGGTGAATGTCCTCCTGGTGGATTTTTGCAAGCCTGGGTTTTATCCGCTGCAG
GTTGGTAGCGATCAGTATGCAGTTGGTCTCCGCTGTTTGATAAAGCAACCGTTCATCT
GCCGGATGGTGATCTGGTTGTTAATGCCGAAAATAATAGCGTGGATAATGTGTATGTTT
AGAGCCTGGCAGTTGATGGTGAAGCACGTACCAGCACCGCTGAGCCAGGCAGATCTG
AGCGGTGGCACCACCGTGGATTTGTTATGGGTCCGGAACCGAGCGATTGGGGCACCGG
TGAAGATGATGCACCTCCGTCACTGACCGAAGGTGATGAACCTCCGACACCGGTTTACGG
ATGCAACCACCGCAGGCCTGGGCACCACCACCGTTGCCGATGGTGATGCCACCACCTCT
GCAGCAGCCCTGACCGATAATACCAGCGGCACCGGTACCACCTTTGCAACCACCACCCC
GAGCATTACATGGGCAGGTAATGGCATTCGTCCGACCGTTGGTAGCTATACCCTGACCT
CTGGTGCAAGCGGCACCGCAAGCCCGTCTGCATGGACCCTGGAAGGTTCTGATGATGGC
GAAACCTGGACCACACTGGATGAACGTAGCGGTGAACAGTTTCGTTGGGCACTGCAGAC
CCGTCCGTTTACCGTTGCCGAACCGACCGCATTTGCACGTTATCGTGTTACCGTTACCG
CAACCAGCGGTTCTGGTGCATGAGCCTGGCAGAAGTTGAACTGCTGGCAGATCCGAAA
GAAAGCGGTGCAGAAGAACTGACCCTGTCTGCAGCACCGGATCGTGATGGCGTTACCGG
TCGTGAAGTTAGCGGTTCTTTTGAACCCTGACCGGTGTTGAAGGTGATGTTGCCGCAC
TGGATGTTTACGGTTGCATTTGGTGATGGTAGCGAACCGGTTGCAGGTACACTGCGTGCC
GGTGATTTGGTGGTTATGCAGTTGATGCAGCACATACCTGGACCGCACCGGGTGTGTTA
TCCGGTTACCGTGACCGTTAGCGGTGAAGGTATTGAAACCGTTAGCGCAAGCAGCTATG
TTAGCGTTAGCCTGCTGCGTGAAGGTTCTCTGCTGGCAGCATATGATAATGTGTGCATT
GGTGATGCAGGTACAACCGTTGGTTCTTGTGATGGTCAGGGCGTTTTTTTTTGATCGTGC
ACAGCTGGCAGCAAAAGGTTTTGTGCAGGGTGAACGTGCAACCGTTCCGGGTACAGATC
TGGCATTTGATGTTCCGGCAGTTCCGGCTGGTCAGCCTGATAATGCAACCGGTGATGGT
CAGACCATTGAACTGGATGTTCCGGCTGATGCAGAACAGCTGAGCGTTATTGGCACCGG
CACCGAAAAAATCAGCAGGCAACCGGTACACTGACCTTTGATGATGGTTCTACCCAGC
CGATTGATCTGAGCTTTGGTGATTTGGAGCGGTGCAGCACGTAATCCGGTGTTTGGTAAT
ATTCCGGTTGCAGTTACCGATAGCCGCTGCGTGGTGGTTCTCCGCAGACCGGTACACC
GGCAGCATTTTTTGGCACCGCACCGATTACCCTGCCGGAAGGTAAACGTCCGGTTAGCC
TGACCCTGCCGGATCAGCCTGGTGAACGTGAGCCGTGATGGTCGTATTCATGTTGTTGCA
GTTGCACATGATGGCACCTTTGCAGAACATCCTGCACTGGAAGTGACCGCAGCAGAAGG
TGTTACCCCTGGCAGTTGGTCAGACCTCAGATGTTGCACTGGCACAGGTTGCCGGTGGTC
GTGAAGGTGCAGATCTGCGTGCCGCAGTTACCTGGGGTGATGGTTCTGATGTGGCAGCC
GGTGCCGTTACCGATGGTAGCGTTAGCGGTAGCCATGCATATACCGCAGCAGGCACCTA

FIGURE 9A (CONTINUED)

TACCGCATATGTTGTTGTGGATGATGGTTGGACCAGCCAGGTTGTTGAAGTTCCGGTGA
CCGTTACAGAAGCCGAACCGGCCTGGCCGTTGATGTCACCGTTAGCACCCGTTGCCTG
GCAGGTAAAGCATATGTTGCAGTGCCTGCAGAAAATGGTGAAGATGTTCCGCTGGCAAT
TCGTCTGGTTACCCCGTTTGGCACCAAAGAAGTTGCAGCAGTTGCTCCGGGAGCCAATG
CATATCAGAGCTTTGCAACCCGTGTTACCGCAGTTGAAGCAGGCACCGTTACCGTTGAA
GCCACCCGTGGCACCGGTGATGAAGAAGTTACCGCCAGCATTGAGGCAGATTATGCAGC
CGTTACCTGCGGTTAATAA

FIGURE 9B

MTRPLPPGRAVARSGSGRARPLGLVLAAALAVPLGVPLAAPAGALAAAPAAAAEPGDFS
SSFESGDPAALPTTVAERDGPWQANVGSFTAGLPGSVLGQLKGV TASAQNL PNEGAAN
LADGSSGTKWLAFAS TGVRYEFAEPVSFVAYTMTSGDDAAGRDPKTTWTVESNDGSTW
AALDRRTDEDFPNRQQTRTFELEAPTAAYTYLRLNVTANS GDSIVQLAGWDL SADSAG
PSAAPMTTKVGTGPRVSFTNKAGVGFSGLHSLRYDGSHLADGETYATNVLYDDVDVVVG
EDTRLSYTI FPELLDDLQYPSTYAAVDVLF TDTGTYLSDLGARDAHETVATAQAQGE GKI
LYADQWNSVRVDLGDVAEGKTV DQVLLGYDNPGGHAGTKFAGWLDDVEITAEPATIDGS
SLANYVDTRRGTLASGSFSRGN NIPATATPNGFNFWTPYTNASSQSWLYEYHKANNANN
KPV LQGFGISHEPSPWMGDRNQLTFLPSTASGTPDATLSTRGLEFDHADETARP DY YGV
TFTNGSAIEATPTDHGAVLRFSYPGAKGHVLVDKVDGSSKLT YDQATGTISGWVEN GSG
LSVGRTRMFVAGTFDRSPTAVGTAAGNRADARFATFETSSDKTVELRVATSFISLDQAR
KNLDLEVTGKTFTEVKAAAAQAWNDRLGVIEVEGASEDQLVTLYSNLYRLNLYPNSQFE
NTGTAQEPVYRYASPV SATTG SATDTQTNAKIVDGKIYVNNGFWD TYRTAWPAYSLLYP
ELAAELVDG FVQQYRDGGWIARWSSPGYADLMTGTSSDVAFA DAYLKGSLPTGTALEAY
DAALRNATVAPPSNAVGRKGLQTS PFLGFTPESTHESVSWGLEGLVND FGINMAAALA
EDPATPEERRETLREESAYFLERATHYVELFDPEVDFFVPRHEDGTWAVDPETYDPEAW
GGGYTETNGWNFAFHAPQDGQGLANLYGGKQGLEDKLDEFFSTPEKGAGNGGIHEQREA
RDVRMGQWGMSNQVSHHIPWLYDAAGAPSKAQEKVREVT RRL FVGSEIGQGP GDEDNG
EMSSWWIFASLG FYP LQVGS DQYAVGSPLFDKATVHLPDGDLV VNAENNSVDNVYVQSL
AVDGEARTSTSLSQADLSGGTTLDFVMGPEPSDWGTGEDDAPPSLTEGDEPPTPVQDAT
TAGLGT TTVADGDATTSAAALTDNTSGTRTTTFATTTPSITWAGNGIRPTVGSYTLTSGA
SGTASPSAWTLEGSDDGETWTTLDERSGEQFRWALQTRPFTVAEPTAFARYRVTVTATS
GSGALSLAEVELLADPKESGAEE LTLSAAPDRDGV TGREVSGSFATLTGVEGDVAALDV
QVAFGDGSEPVAGTLRAGAFGGYAVDAAHTWTAPGVYPVTVTVSGEG IETVSASSYVSV
SLLREGSLLAAYDNVCIGDAGTTVGSCDGGVFFDRAQLAAKGFVQGERATVP GTDLAF
DVPAPVAGQP DNATGDGQTIELDVPADAEQLSVIGTGTEKNQQATGTLTFDDGSTQPID
LSFGDWSGAARNPVFGNIPVAVTDSRLRGGSPQTGT PAAFFATAPITLPEGKR PVS LTL
PDQPGELSRDGR IHVVAVAHDGTFAEH PALEVTA AEGVTLAVGQTS DVALAQVAGGREG
ADLRAAVTWGDGSDVAAGAVTDG SVSGSHAYTAAGTYTAYVVVDDGWTSQVVEVPVTVT
EAEPALAVDVTVSTRCLAGKAYVAVRAENGEDVPLAIRLVTFPGTKEVA AVAPGANAYQ
SFATRVTA VEAGTVTVEATRGTGDEEVTASIQADYAAVTCG

FIGURE 9B (CONTINUED)

MTRPLPPGRAVARSGSGRARPLGLVLAAALAVPLGVPLAAPAGALAAAPAAAAEPGDFS
SSFESGDPAALPTTVAERDGA PWQANVGSFTAGLP GSVLGQLKGV TASAQNL PNEGAAN
LADGSSSGTKWLAFAS TGWVRYEFAEPVSFVAYTMTSGDDAAGRDPKTWTVEGSNDGSTW
AALDRRTDEDFPNRQQTRTFELEAPTAAYTYLRLNVTANSGDSIVQLAGWDL SADLSAG
PSAAPMTTKVGTGPRVSFTNKAGVGFSGLHSLRYDGSHLADGETYATNVLYDDVDVVG
EDTRLSTYTI FPELLDDLQYPSTYAAVDVLF TDGTYLSDLGARDAHETVATAQAQGE GKI
LYADQWNSVRVDLGDVAEGKTV DQVLLGYDNPGGHAGTKFAGWLDDVEITAE PATIDGS
SLANYVDTRRGTLASGSFSRGNNIPATATPNGFNFWTPYTNASSQSWLYEYHKANNANN
KPV LQGFGI SHEPSPWMGDRNQLTFLPSTASGTPDATLSTRGLEFDHADETARP DY YGV
TFTNGSAIEATPTDHGAVLRFSYPGAKGHVLVDKVDGSSKLTYDQATGTISGWVENGSG
LSVGRTRMFVAGTFDRSPTAVGTAAGN RADARFATFETSSDKTVELRVATSFISLDQAR
KNLDLEVTGKTFTEVKAAAAQAWNDRLGVIEVEGASEDQLVTLYSNLYRLNLYPNSQFE
NTGTAQEPVYRYASPV SATTGSATDTQTNAKIVDGKIYVNNGFWD TYRTAWPAYSLLYP
ELAAELVDG FVQQYRDGGWIARWSSPGYADLMTGTSSDVAFADAYLK GSLPTGTALEAY
DAALRNATVAPPSNAVGRKGLQTS PFLGFTPESTHESVSWGLEGLVND FGI GNMAAALA
EDPATPEERRETLREESAYFLERATHYVELFDPEVDFFVPRHEDGTWAVDPETYDPEAW
GGGYTETNGWNFAFHAPQDGQGLANLYGGKQGLEDKLDEFFSTPEKGAGNGGIHEQREA
RDVRMGQWGM SNQVSHHIPWLYDAAGAPSKAQEKVREVT RRL FVGSEIGQGYPGDEDNG
EMSSWWIFASLG FYPLOVGS DQYAVGSPLFDKATVHL PDGDLVNAENNSVDNVYVQSL
AVDGEARTSTSLSQADLSGGTTLD FVMGPEPSDWGTGEDDAPPSLTEGDEPPTPVQDAT
TAGLGT TTVADGDATTSAAALTDNTSGTRTTFATTTPSITWAGNGIRPTVGSYTLTSGA
SGTASPSAWTLEGSDDGETWTTLDERSGEQFRWALQTRPFTVAEPTAFARYRVTVTATS
GSGALSLAEVELLADPKESGAEE LTLSAAPDRDGV TGREVS GS FATLTGVEGDVAALDV
QVAFGDGSEPVAGTLRAGAFGGYAVDAAHTWTAPGVYPVTVTVSGEG IETVSASSYVSV
SLLREGSLLAAYDNVCIGDAGTTVGSCDGGQGVFFDRAQLAAKGFVQGERATVP GTDLAF
DVPAPVAGQP DNATGDGQTIELDVPADAEQLSVIGTGTEKNQQATGTLTFDDGSTQPID
LSFGDWSGAARNPVFGNIPVAVTDSRLRGGSPQTGT PAAFFATAPITLPEGKRPVSLTL
PDQPGELSRDGRIHVVAVAHDGTFAEH PALEVTA AEGVTLAVGQTS DVALAQVAGGREG
ADLRAAVTWGDGSDVAAGAVTDG SVSGSHAYTAAGTYTAYVVVDDGWTSQVVEVPVTVT
EAEPALAVDVT VSTRCLAGKAYVAVRAENGEDVPLAIRLVTPFGTKEVA AVAPGANAYQ
SFATRVTA VEAGTVTVEATRGTGDEEVTASIQADYAAVTCG (SEQ ID NO:10)

FIGURE 10

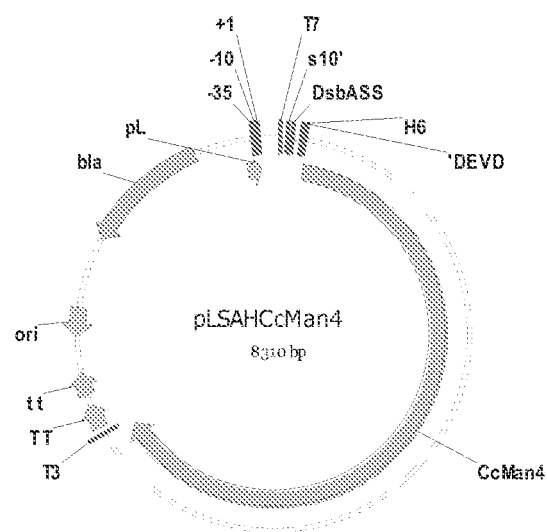
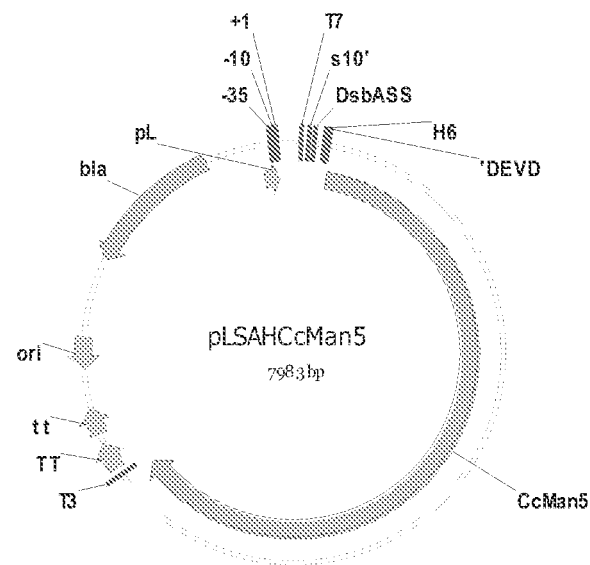
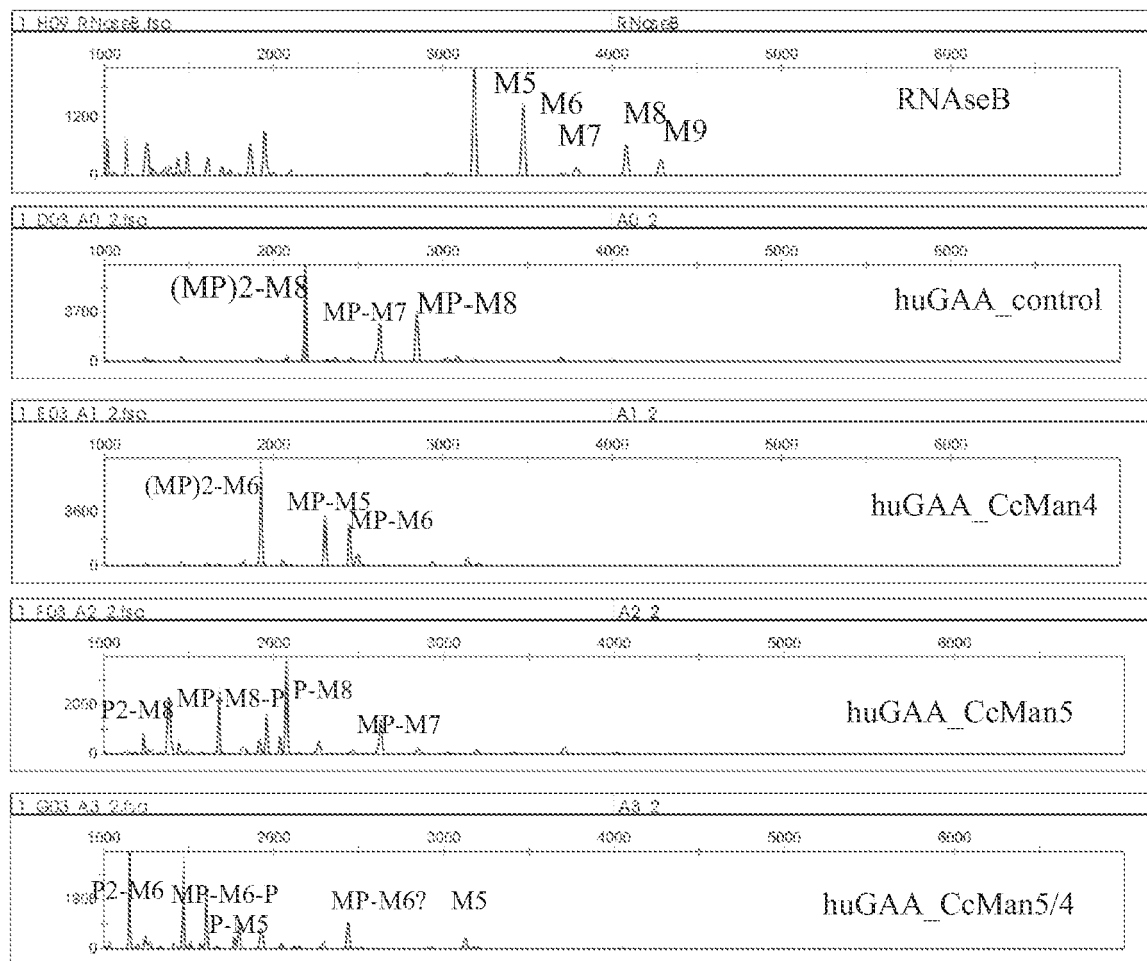


FIGURE 11



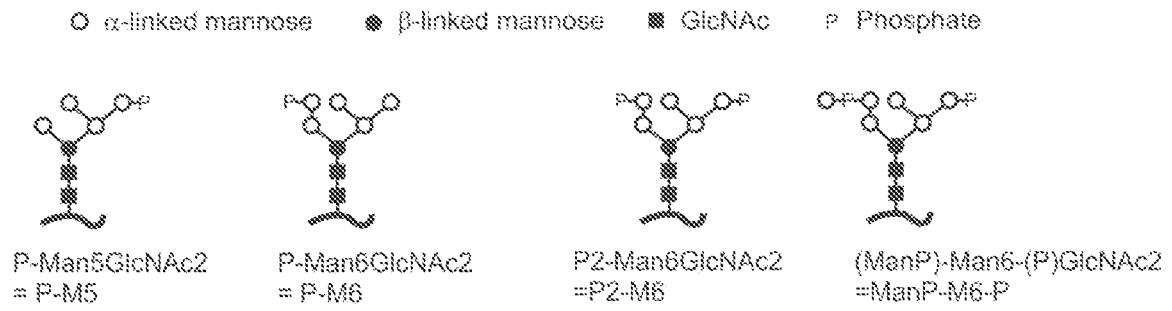


FIGURE 13

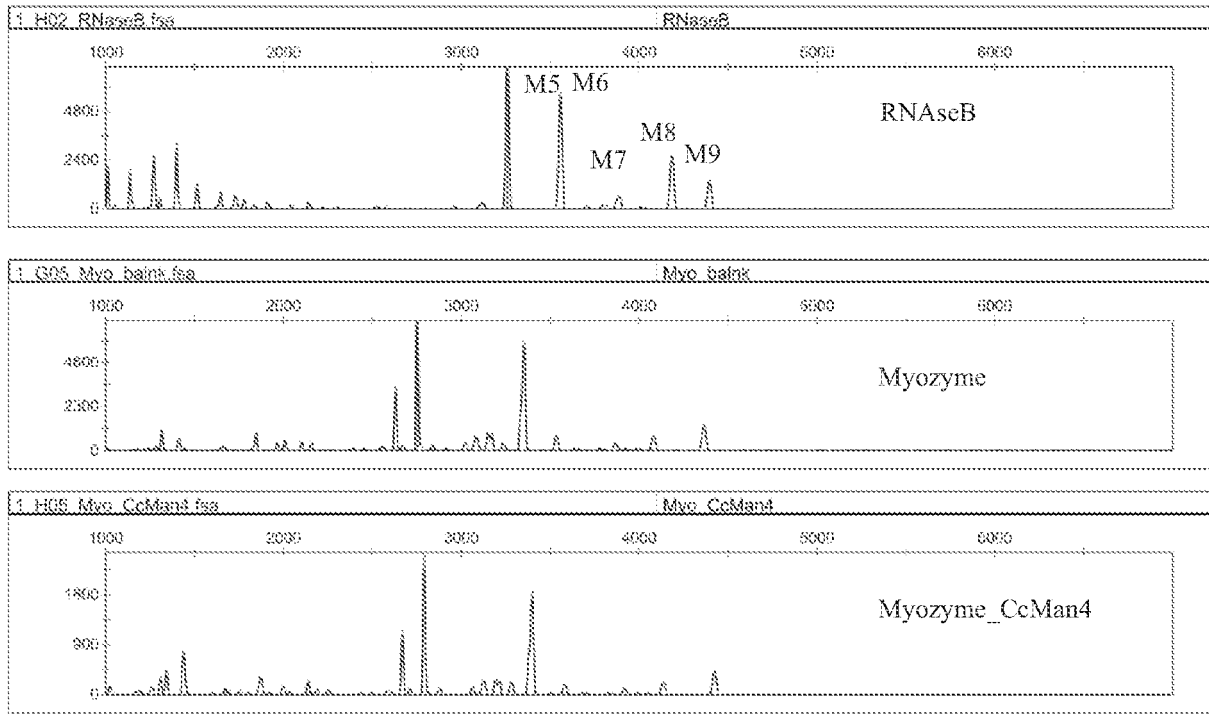


FIGURE 14

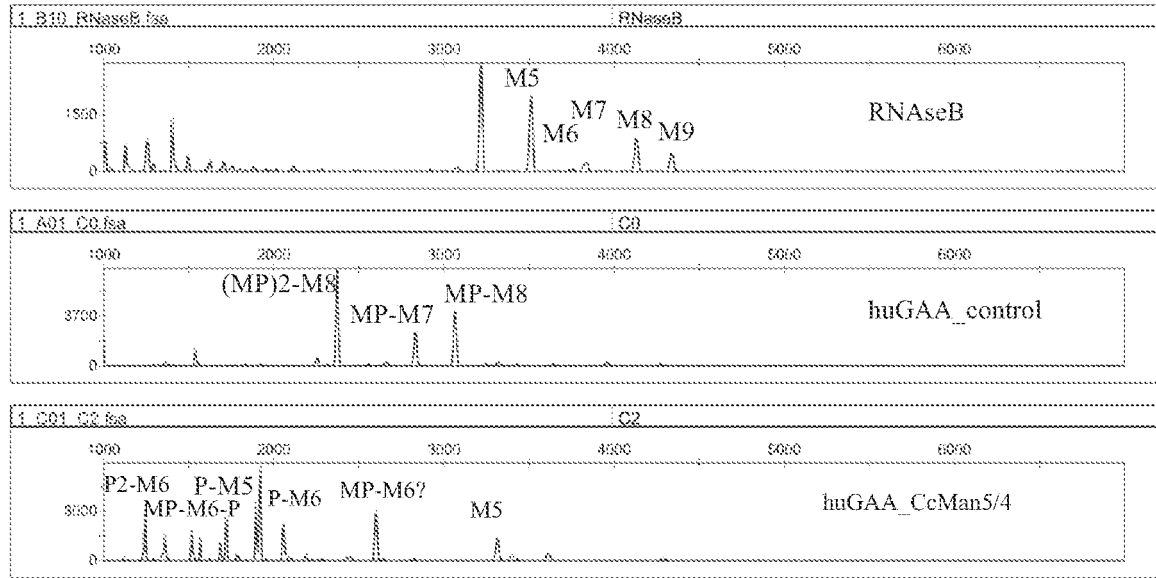


FIGURE 15

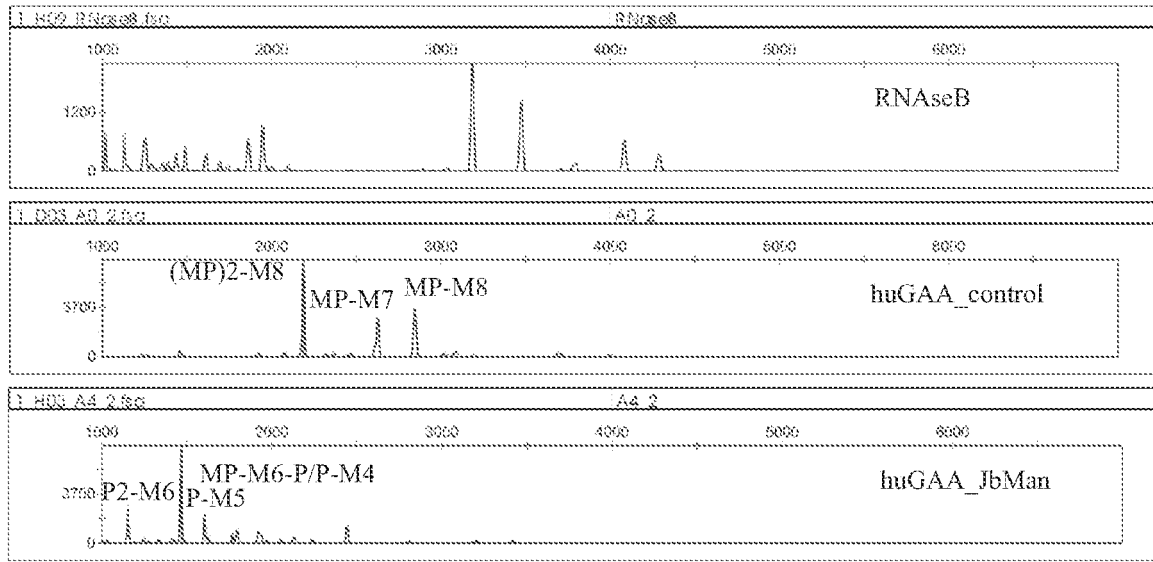


FIGURE 16

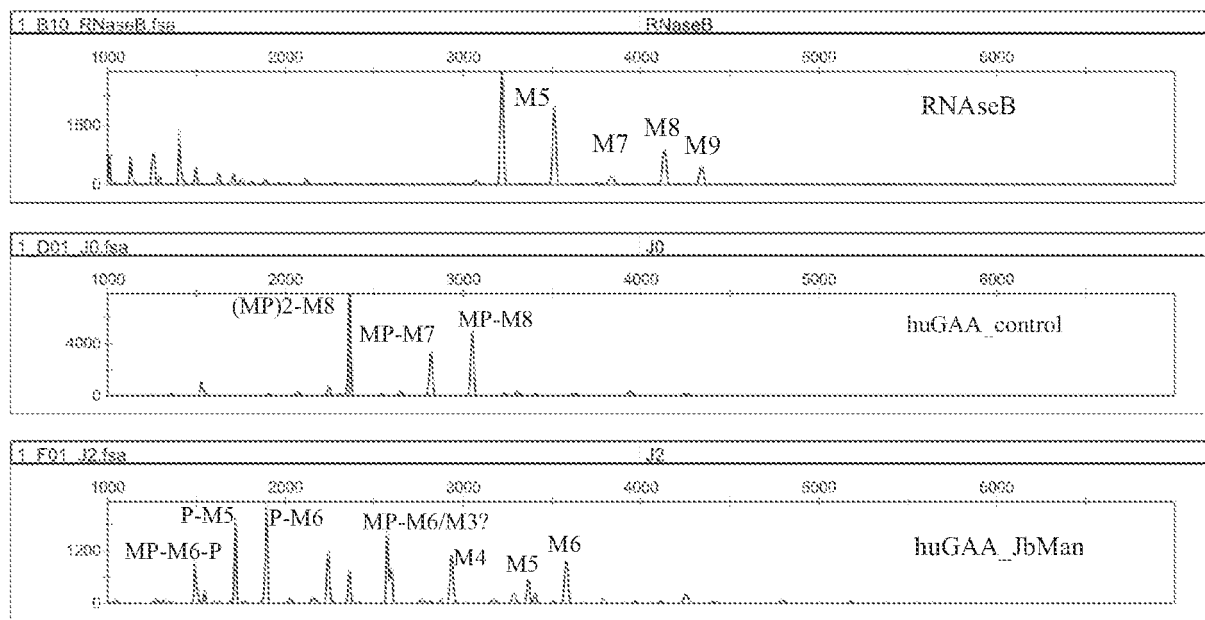


FIGURE 17

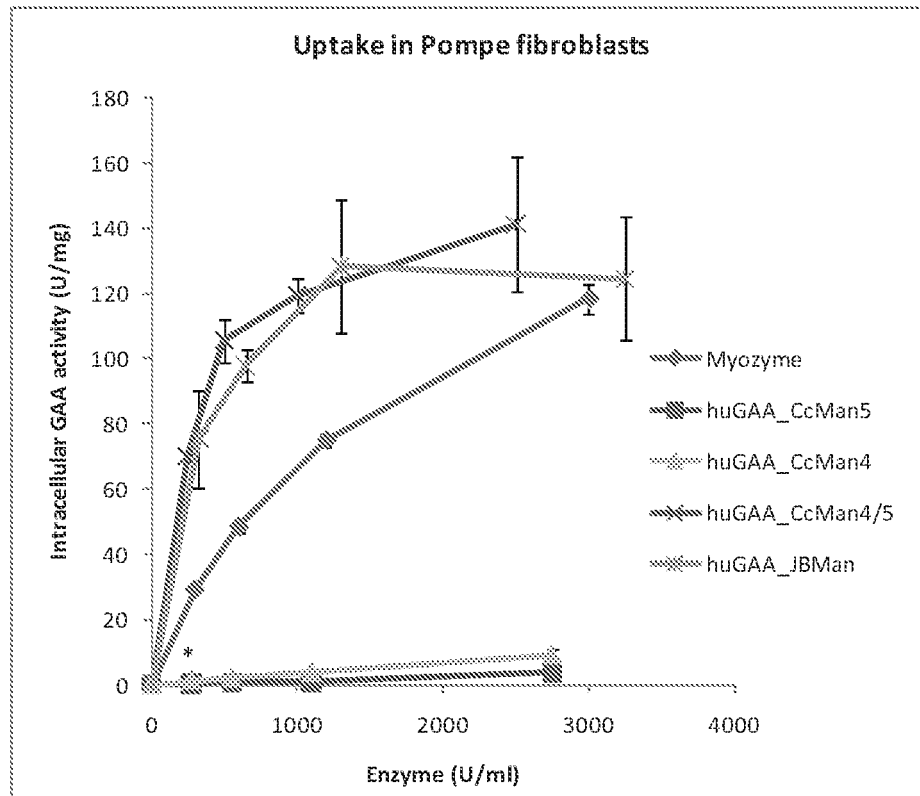


FIGURE 18

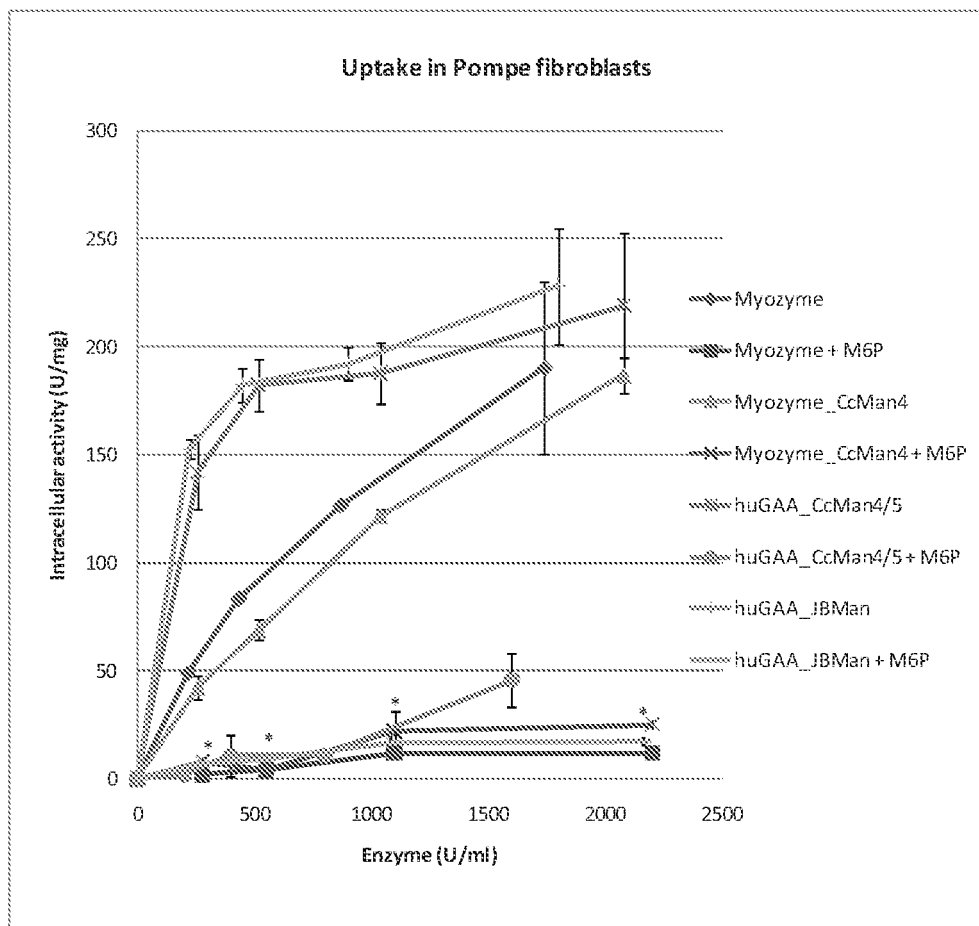


FIGURE 19

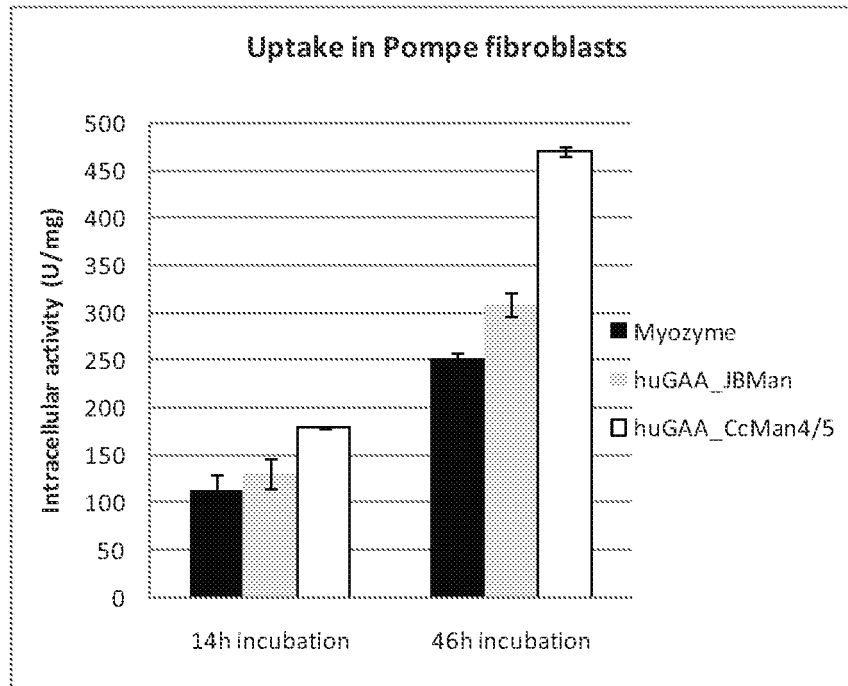
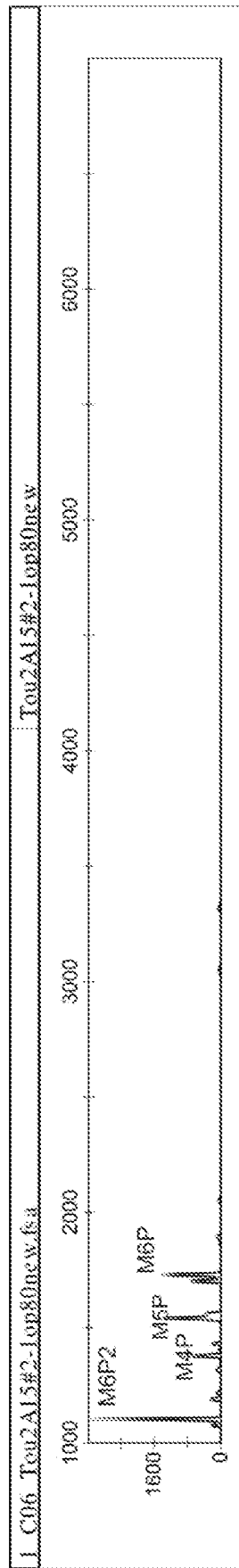


FIGURE 20



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FIGURE 21

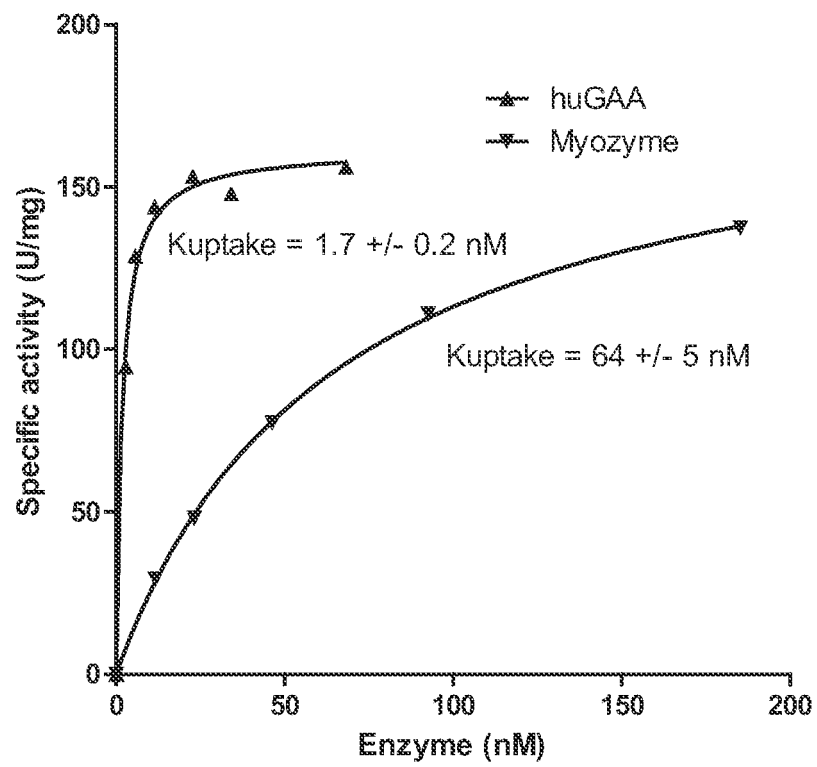


FIGURE 22

1 mhlpslsisl talaiaspsa ayphfgssqp vlhssddttq sradaikaaf shawdgylqy
61 afphdelhvp sngygdsrnq wgasavdals tavimrnati vnqildhvgk idysktnttv
121 slfettiryl ggmlsgydll kgpvsdlvqn sskidvlltq sknladvlkf afdtpsgvpy
181 nnlnitsggn dgaktnglav tgtlalewtr lsdltgddty adlsqkaesy llnppksae
241 pfpglvgsni nisngqftda qvswnggdds yyeylikmyv ydpkrfglyk drwvaaqst
301 mqhlashpss rpdltflasy nngtlglssq hlctfdggsf llggtvlnrt dfinfgldlv
361 sgchdtynst ltgigpesfs wdtsdipssq qslyekagfy itsgayilrp eviesfyyaw
421 rvtggetyrd wiwsafsavn dycrtssgfs gltdvnaang gsrydnqesf lfaevmkysy
481 mafaedaawq vqpgsgnqfv fnteahpvrsv sst