**Figure 1A**

AGAGGTACCC CGGGCTGGTA TATTTATATG TTGTCAAATA ACTCAAAAAC
CATAAAAGTT TAAGTTAGCA AGTGTGTACA TTTTACTTG AACAAAAATA
TTCACCTACT ACTGTTATAA ATCATTATTA AACATTAGAG TAAAGAAATA
TGGATGATAA GAACAAGAGT AGTGATATTT TGACAACAAT TTTGTTGCAA
CATTTGAGAA AATTTTGTG TTCTCTCTTT TCATTGGTCA AAAACAATAG
AGAGAGAAAA AGGAAGAGGG AGAATAAAAA CATAATGTGA GTATGAGAGA
GAAAGTTGTA CAAAAGTTGT ACCAAAATAG TTGTACAAAT ATCATTGAGG
AATTTGACAA AAGCTACACA AATAAGGGTT AATTGCTGTA AATAAATAAG
GATGACGCAT TAGAGAGATG TACCATTAGA GAATTTTTGG CAAGTCATTA
AAAAGAAAGA ATAAATTATT TTTAAAATTA AAAGTTGAGT CATTTGATTA
AACATGTGAT TATTTAATGA ATTGATGAAA GAGTTGGATT AAAGTTGTAT
TAGTAATTAG AATTTGGTGT CAAATTTAAT TTGACATTTG ATCTTTTCCT
ATATATTGCC CCATAGAGTC AGTTAACTCA TTTTATATT TCATAGATCA
AATAAGAGAA ATAACGGTAT ATTAATCCCT CCAAAAAAAA AAAACGGTAT
ATTTACTAAA AAATCTAAGC CACGTAGGAG GATAACAGGA TCCCCGTAGG
AGGATAACAT CCAATCCAAC CAATCACAAC AATCCTGATG AGATAACCCA
CTTTAAGCCC ACGCATCTGT GGCACATCTA CATTATCTAA ATCACACATT
CTTCCACACA TCTGAGCCAC ACAAAAACCA ATCCACATCT TTATCACCCA
TTCTATAAAA AATCACACTT TGTGAGTCTA CACTTTGATT CCCTTCAAAC
ACATACAAAG AGAAGAGACT AATTAATTAA TTAATCATCT TGAGAGAAA
TG

Figure 1B

TAAGTTAAAA TGCTTCTTCG TCTCCTATTT ATAATATGGT TTGTTATTGT
TAATTTTGTT CTTGTAGAAG AGCTTAATTA ATCGTTGTTG TTATGAAATA
CTATTTGTAT GAGATGAACT GGTGTAATGT AATTCATTTA CATAAGTGGA
GTCAGAATCA GAATGTTTCC TCCATAACTA ACTAGACATG AAGACCTGCC
GCGTACAATT GTCTTATATT TGAACAACTA AAATTGAACA TCTTTTGCCA
CAACTTTATA AGTGGTTAAT ATAGCTCAA TATATGGTCA AGTTC AATAG
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GTTATTAACT ACTAATTTTA TATCATCCCC TTTGATAAAT GATAGTACA

Figure 1C

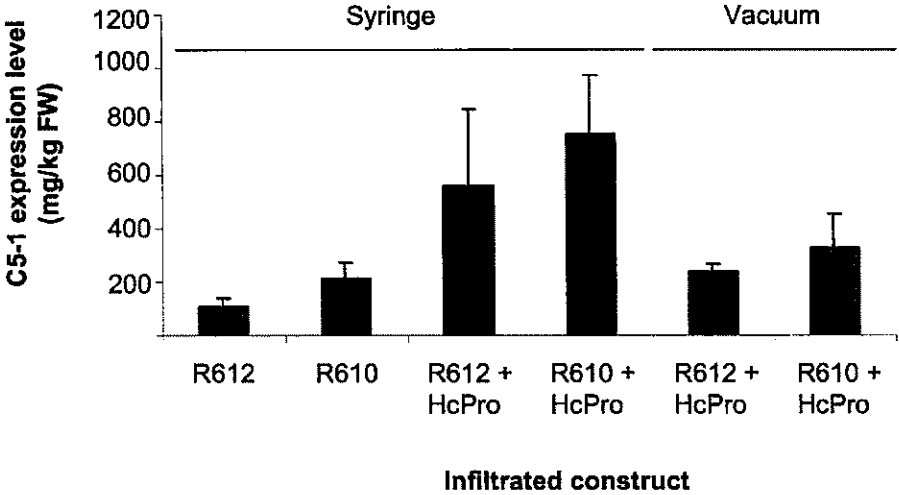


Figure 2

Figure 3A

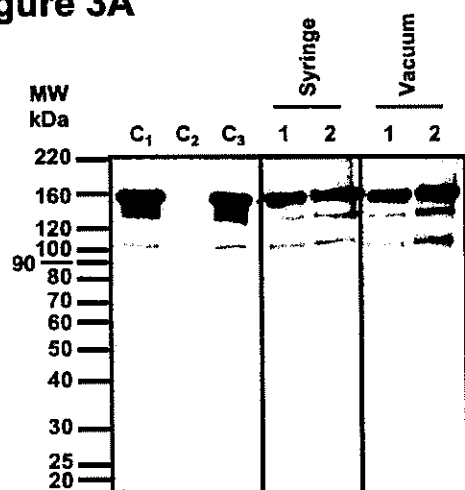
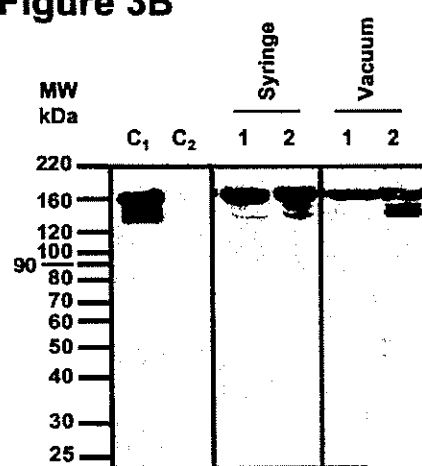
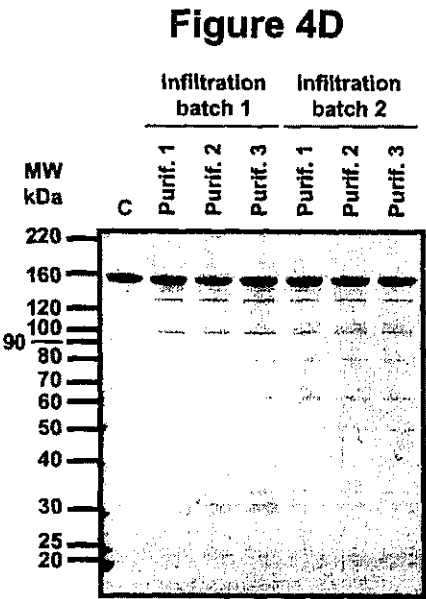
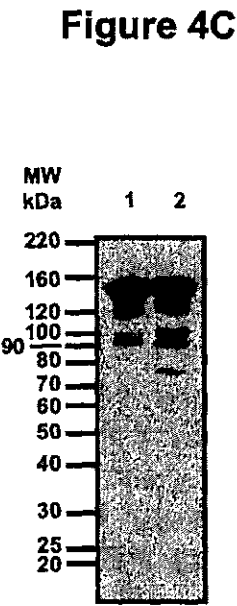
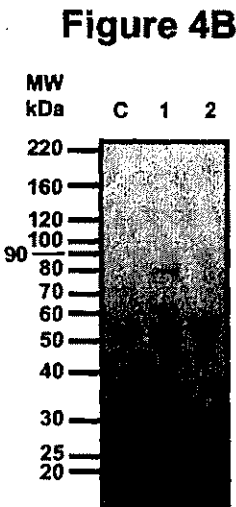
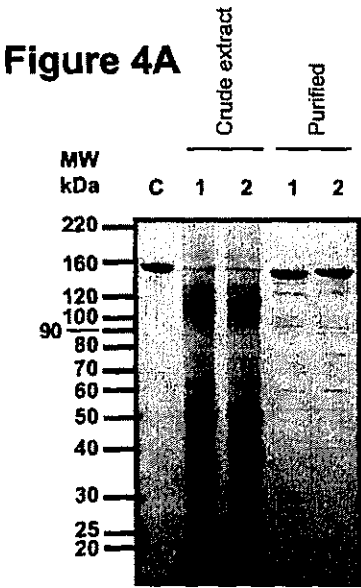


Figure 3B





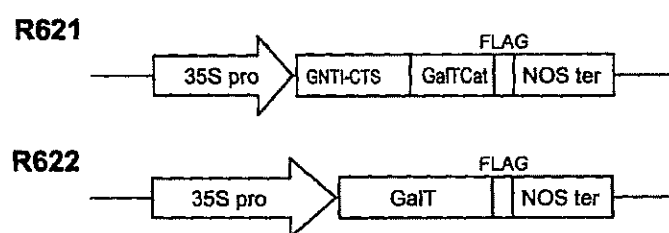


Figure 5A

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GCCGCCGCCATCGGGCAGTCTCCGGGGAGCTCCGGACCGGAGGGGCCCGGCCGCGCTCCTCT
AGGCGCCTCCTCCAGCCGCGCCCGGGTGGCGACTCCAGCCCAGTCGTGGATTCTGGCCCTGGCCC
CGCTAGCAACTTGACCTCGGTCCCAGTGCCCCACACCACCGCACTGTCGCTGCCCGCCTGCCCTGA
GGAGTCCCCGCTGCTTGTGGGCCCCATGCTGATTGAGTTTAAACATGCCTGTGGACCTGGAGCTCGT
GGCAAAGCAGAACCCTAAATGTGAAGATGGGCGGCCGCTATGCCCCAGGGACTGCGTCTCTCCTC
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GCACCCAGTCTGCAGCGCCAGCAGCTGGACTATGGCATCTATGTTATCAACCAGGCGGGAGACAC
TATATTCAATCGTGCTAAGCTCCTCAATGTTGGCTTTCAAGAAGCCTTGAAGGACTATGACTACACCT
GCTTTGTGTTTAGTGACGTGGACCTCATTCCAATGAATGACCATAATGCGTACAGGTGTTTTTCACAG
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GAGGAGAAGATGATGACATTTTTAACAGATTAGTTTTTAGAGGCATGTCTATATCTCGCCCAAATGC
TGTGGTCGGGAGGTGTCGCATGATCCGCCACTCAAGAGACAAGAAAAATGAACCCAATCCTCAGAG
GTTTGACCGAATTGCACACACAAAGGAGACAATGCTCTCTGATGGTTTGAAGTCACTCACCTACCAG
GGGCTGGATGTACAGAGATACCCATTGTATACCCAAATCACAGTGGACATCGGGACACCGAGCGAT
TACAAGGATGACGATGACAAGATCGATTAG

Figure 5B

MRLREPLLSGSAAMPGLQACRLLVAVCALHLGVTLVYYLAGRDLSRLPQLVGVSTPLQGGSNSAAAI
GQSSGELRTGGARPPPLGASSQPRPGDSSPVVDSGPGPASNLTSVPVPHTTALSLPACPEESPILLVG
PMLIEFNMPVDLELVAKQNPVVKMGGRYAPRDCVSPHKVAIIIPFRNRQEHLKYWLYLHPVLQRQQLD
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SLPYVQYFGGVSALSQQFLTINGFPNNYWGWGGEDDDIFNRLVFRGMSISRPNAVVGRCRMRHSRD
KKNEPNPQRFDRIAHTKETMLSDGLNSLTYQGLDVQRYPLYTQITVDIGTPSDYKDDDDKID*

Figure 5C

ATGAGAGGGTACAAGTTTTGCTGTGATTTCCGGTTACCTCCTCATCTTGGCTGCTGTGCGCCTTCATCTAC
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 TGCTTGTTGGGCCCCATGCTGATTGAGTTTAACATGCCTGTGGACCTGGAGCTCGTGGCAAAGCAGAA
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 CATCATTCCATTCCGCAACCGGCAGGAGCACCTCAAGTACTGGCTATATTATTTGCACCCAGTCCTG
 CAGCGCCAGCAGCTGGACTATGGCATCTATGTTATCAACCAGGCGGGAGACACTATATTCAATCGTG
 CTAAGCTCCTCAATGTTGGCTTTCAAGAAGCCTTGAAGGACTATGACTACACCTGCTTTGTGTTTAGT
 GACGTGGACCTCATTCCAATGAATGACCATAATGCGTACAGGTGTTTTTCACAGCCACGGCACATTT
 CCGTTGCAATGGATAAGTTTGGATTGAGCCTACCTTATGTTGAGTATTTTGGAGGTGTCTCTGCTCTA
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 CACACACAAAGGAGACAATGCTCTCTGATGGTTTGAACCTCACTCACCTACCAGGGGCTGGATGTACA
 GAGATACCCATTGTATACCCAAATCACAGTGGACATCGGGACACCGAGCGATTACAAGGATGACGAT
 GACAAGATCGATTAG

Figure 5D

MRGYKFCCDFRYLLILAAVAFIYIQMRLFATQSEYADRLAAIEAENHCTSQTRLLIDQISQQQGRIVALEEQ
 MKRQTSALSLPACPEESPLLVGPMLEFNMPVDLELVAKQNPVVKMGGRYAPRDCVSPHKVAIIIPFRNR
 QEHLKYWLYLHPVLQRQQLDYGIYVINQAGDTIFNRAKLLNVGFQEALKDYDYTCFVFSVDLIPMNDH
 NAYRCFSQPRHISVAMDKFGFSLPYVQYFGGVSALSKQQFLTINGFPNNYWGWWGGEDDDIFNRLVFRG
 MSISRPNAVVGRCRMIRHSRDKKNEPNPQRFDRIAHTKETMLSDGLNSLTYQGLDVQRYPLYTQITVDIG
 TPSDYKDDDDKID*

Figure 5E

TACCTCCTCATCTTGGCTGCTGTCGCCTTCATCTACATACAGATGCGGCTTTT

Figure 5F

YLLILAAVAFIYIQMRLF

Figure 5G

GNTI-GNTIII nucleotide sequence

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ATGAGAGGGA ACAAGTTTTG CTGTGATTTC CGGTACCTCC TCATCTTGGC 50
TGCTGTCGCC TTCATCTACA CACAGATGCG GCTTTTTCG ACACAGTCAG 100
AATATGCAGA TCGCCTTGCT GCTGCAATTG AAGCAGAAAA TCATTGTACA 150
AGCCAGACCA GATTGCTTAT TGACCAGATT AGCCTGCAGC AAGGAAGAAT 200
AGTTGCTCTT GAAGAACAAA TGAAGCGTCA GACTAGTTCG CCCCTGCTGC 250
AGCCGCTGCC GCCCAGCAAG GCGGCCGAGG AGCTCCACCG GGTGGACTTG 300
GTGCTGCCCC AGGACACCAC CGAGTATTTT GTGCGCACCA AGGCCGGCGG 350
CGTCTGCTTC AAACCCGGCA CCAAGATGCT GGAGAGGCCG CCCCCTGGAC 400
GGCCGGAGGA GAAGCCTGAG GGGGCCAACG GCTCCTCGGC CCGCGGCCA 450
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GCGCAAGTGG GTGGAGTGCG TGTGCCTGCC CGGCTGGCAC GGACCCAGCT 550
GCGGCGTGCC CACTGTGGTG CAGTACTCCA ACCTGCCCAC CAAGGAGCGG 600
CTGGTGCCCA GGGAGGTGCC GCGCCGCGTC ATCAACGCCA TCAACGTCAA 650
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CGGCCGCTCA AGTTCGGGA GATGCTGACC AATGGCACCT TCGAGTACAT 800
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CGACGGCACG CAGCAGGAGT ACCCGCCTGC AGACCCAGC GAGCACATGT 1450
ATGCGCCCAA GTACCTGCTG AAGAACTACG ACCGGTTCCA CTACCTGCTG 1500
GACAACCCCT ACCAGGAGCC CAGGAGCACG GCGGCGGGCG GGTGGCGCCA 1550
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```

Figure 5H

GNTIGNTIII peptide sequence

MRGNKFCCDFRYLLILAAVAFIYTQMRLFATQSEYADRLAAAIEAENHCTSQTRLLIDQ
ISLQQGRIVALEEQMKRQTSSPLLQPLPPSKAAEELHRVDLVLPEDTTEYFVRTKAGGV
CFKPGTKMLERPPPGRPEEKPEGANGSSARRPPRYLLSARERTGGRGARRKWVECVCLP
GWHGPSCGVPTVVQYSNLPTKERLVPREVPRRVINAINVNHEFDLLDVRFHGELGDVVDA
FVVCESNFTAYGEPRLKFREMLTNGTFEYIRHKVLYVFLDHFPFGGRQDGWIADDYLR
TFLTQDGVSRRLRNLRPDDVFIIDDADEIPARDGVLFLKLYDGWTEPFAFHRKSLYGFF
WKQPGTLEVVSCTVDMLQAVYGLDGIRLRRRQYYTMPNFRQYENRTGHILVQWSLGS
LHFAGWHCSWCFTPEGIYFKLVSAQNGDFPRWGDYEDKRDNLNYIRGLIRTGGWFDGTQQ
EYPPADPSEHMYAPKYLLKNYDRFHYLLDNPYQEPRSTAAGGWRHRGPEGRPPARGKLD
EAEVEQKLI SEEDLN*

Figure 5I**GNTIII peptide sequence**

TSSPLLQPLPPSKAAEELHRVDLVLPEDTTEYFVRTKAGGVCFKPGTKMLERPPPGRPE
EKPEGANGSSARRPPRYLLSARERTGGRGARRKWVECVCLPGWHGPSCGVPTVVQYSNL
PTKERLVPREVPRRVINAINVNHEFDLLDVRFHGELGDVVDAFVVCESNFTAYGEPRLK
FREMLTNGTFEYIRHKVLYVFLDHFPFGGRQDGWIADDYLRFLTQDGVSRRLRNLRPDD
VFIIDDADEIPARDGVLFLKLYDGWTEPFAFHRKSLYGFFWKQPGTLEVVSCTVDML
QAVYGLDGIRLRRRQYYTMPNFRQYENRTGHILVQWSLGSPLHFAGWHCSWCFTPEGIY
FKLVSAQNGDFPRWGDYEDKRDNLNYIRGLIRTGGWFDGTQQEYPPADPSEHMYAPKYLL
KNYDRFHYLLDNPYQEPRSTAAGGWRHRGPEGRPPARGKLD EAEVEQKLI SEEDLN*

Figure 5K

GNT III

```

—
ACTAGTTCGC CCCTGCTGCA GCCGCTGCCG CCCAGCAAGG CGGCCGAGGA 50
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GAGAGGCCGC CCCC GGACG GCCGGAGGAG AAGCCTGAGG GGGCCAACGG 200
CTCCTCGGCC CGGCGGCCAC CCCGGTACCT CCTGAGCGCC CGGGAGCGCA 250
CGGGGGGCGG AGGCGCCCGG CGCAAGTGGG TGGAGTGCGT GTGCCTGCCC 300
GGCTGGCACG GACCCAGCTG CGGCGTGCCC ACTGTGGTGC AGTACTCCAA 350
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TCAACGCCAT CAACGTCAAC CACGAGTTCG ACCTGCTGGA CGTGCCTTC 450
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ATGGCACCTT CGAGTACATC CGCCACAAGG TGCTCTATGT CTTCTTGGAC 600
CACTTCCCGC CCGGCGGCCG GCAGGACGGC TGGATCGCCG ACGACTACCT 650
GCGCACCTTC CTCACCCAGG ACGGCGTCTC GCGGCTGCGC AACCTGCGGC 700
CCGACGACGT CTTTCATCATT GACGATGCGG ACGAGATCCC GGCCCGTGAC 750
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Figure 5J

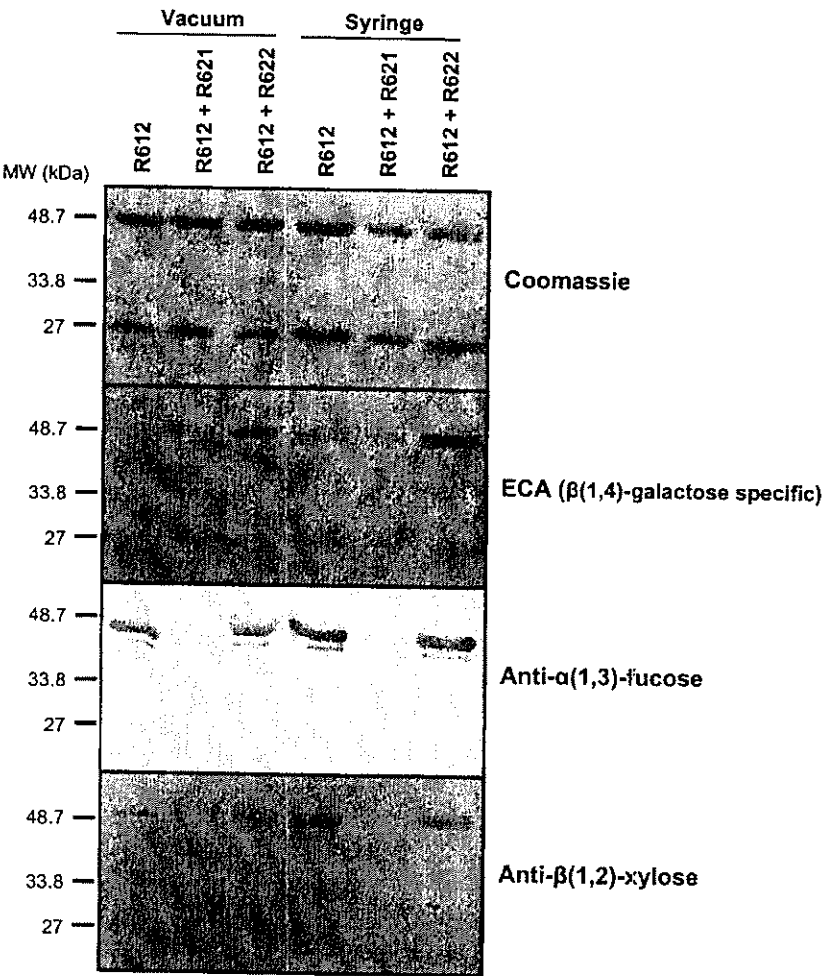


Figure 6

Figure 7A

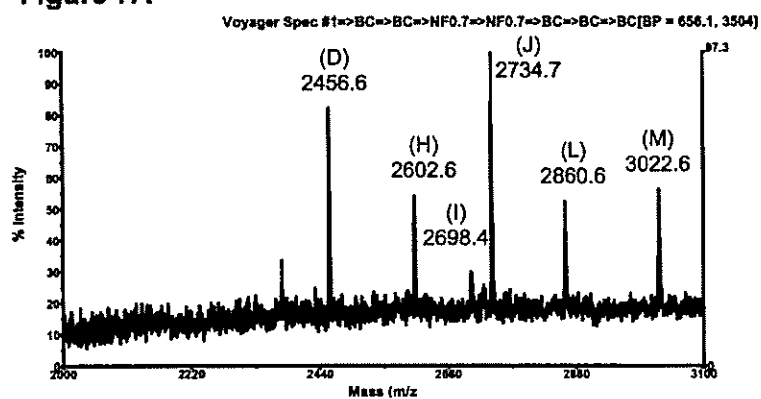


Figure 7 B

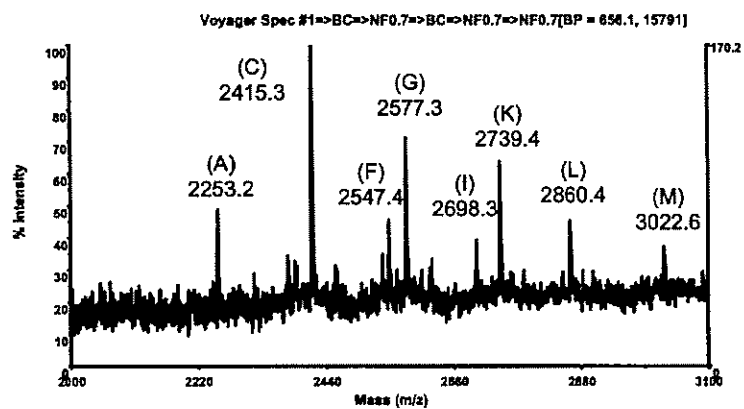


Figure 7C insert

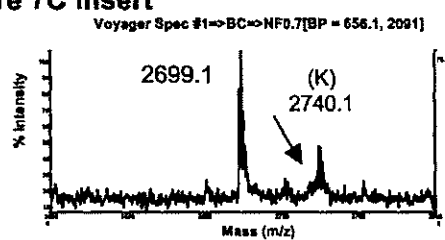


Figure 7C

