**Figure 1A**

AGAGGTACCC CGGGCTGGTA TATTTATATG TTGTCAAATA ACTCAAAAAC
CATAAAAGTT TAAGTTAGCA AGTGTGTACA TTTTACTTG AACAAAAATA
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TGGATGATAA GAACAAGAGT AGTGATATTT TGACAACAAT TTTGTTGCAA
CATTTGAGAA AATTTTGTTG TTCTCTCTTT TCATTGGTCA AAAACAATAG
AGAGAGAAAA AGGAAGAGGG AGAATAAAAA CATAATGTGA GTATGAGAGA
GAAAGTTGTA CAAAAGTTGT ACCAAAATAG TTGTACAAAT ATCATTGAGG
AATTTGACAA AAGCTACACA AATAAGGGTT AATTGCTGTA AATAAATAAG
GATGACGCAT TAGAGAGATG TACCATTAGA GAATTTTGG 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
CTTCACACA 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 TGAACAATA AAATTGAACA TCTTTTGCCA
CAACTTTATA AGTGGTTAAT ATAGCTCAA TATATGGTCA AGTTCAATAG
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GTTATTAACT ACTAATTTTA TATCATCCCC TTTGATAAAT GATAGTACA

Figure 1C

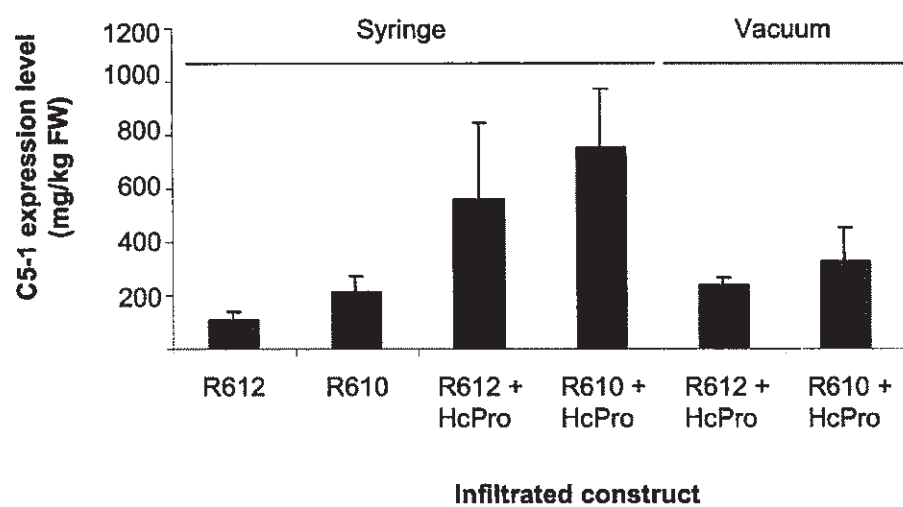
**Figure 2**

Figure 3A

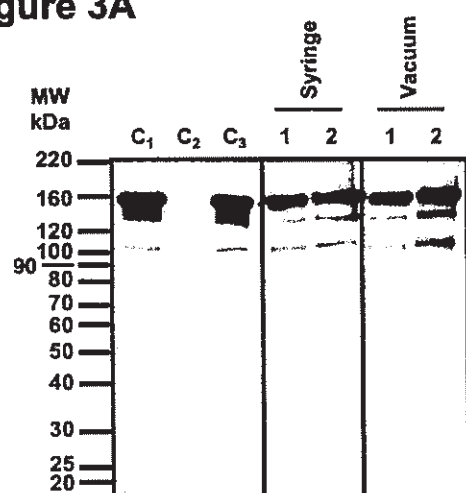
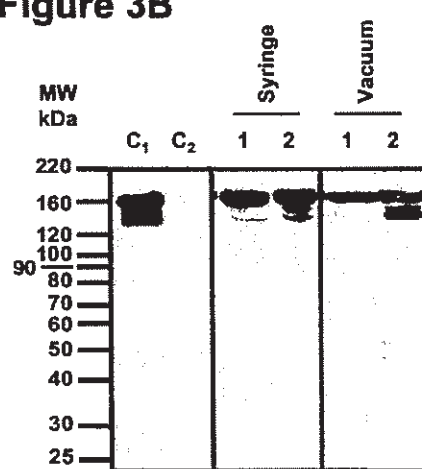
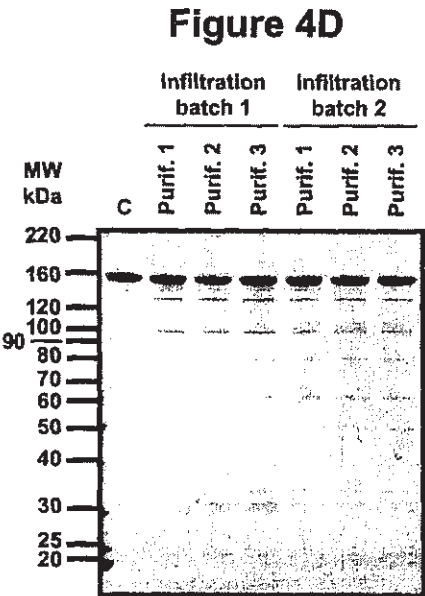
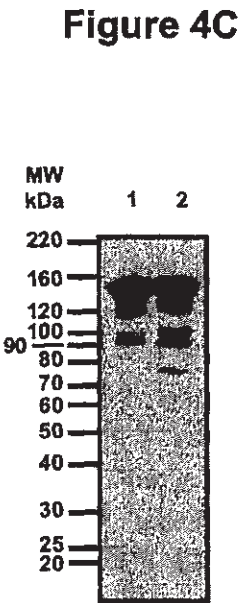
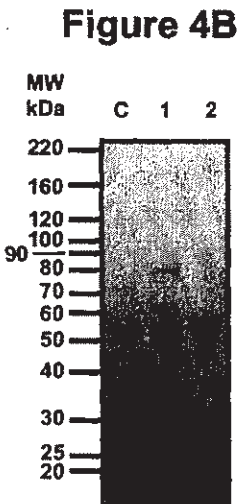
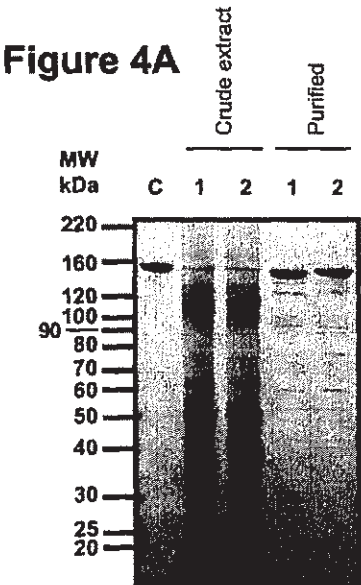


Figure 3B





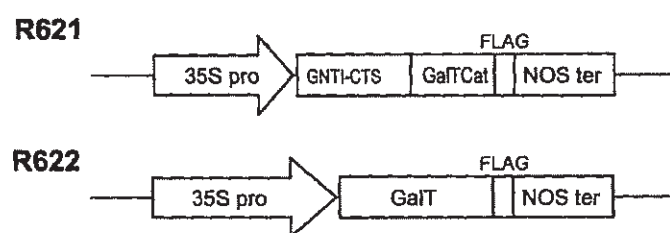


Figure 5A

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 GCCGCCGCCATCGGGCAGTCTCCGGGGAGCTCCGGACCGGAGGGGCCCCGGCCGCCGCTCCTCT
 AGGCGCTCCTCCAGCCGCGCCCGGGTGGCGACTCCAGCCCAGTCGTGGATTCTGGCCCTGGCCC
 CGCTAGCAACTTGACCTCGGTCCCAGTGCCCCACACCACCGCACTGTCGCTGCCCGCTGCCCTGA
 GGAGTCCCCGCTGCTTGTGGGCCCCATGCTGATTGAGTTAACATGCCTGTGGACCTGGAGCTCGT
 GGCAAAGCAGAACCCTAAATGTGAAGATGGGCGGCCGCTATGCCCCAGGGACTGCGTCTCTCCTC
 ACAAGGTGGCCATCATCATTCCATTCCGCAACCGGCAGGAGCACCTCAAGTACTGGCTATATTATT
 GCACCCAGTCTGCAGCGCCAGCAGCTGGACTATGGCATCTATGTTATCAACCAGGCGGGAGACAC
 TATATTCAATCGTGCTAAGCTCCTCAATGTTGGCTTTCAAGAAGCCTTGAAGGACTATGACTACACCT
 GCTTTGTGTTTAGTGACGTGGACCTCATTCCAATGAATGACCATAATGCGTACAGGTGTTTTTCACAG
 CCACGGCACATTTCCGTTGCAATGGATAAGTTTGGATTGAGCCTACCTTATGTTGAGTATTTTGGAGG
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 GAGGAGAAGATGATGACATTTTTAACAGATTAGTTTTTAGAGGCATGTCTATATCTCGCCCAAATGC
 TGTGGTCGGGAGGTGTCGCATGATCCGCCACTCAAGAGACAAGAAAAATGAACCCAATCCTCAGAG
 GTTTGACCGAATTGCACACACAAAGGAGACAATGCTCTCTGATGGTTTGAAGTCACTCACCTACCAG
 GGGCTGGATGTACAGAGATACCCATTGTATACCCAAATCACAGTGGACATCGGGACACCGAGCGAT
 TACAAGGATGACGATGACAAGATCGATTAG

Figure 5B

MRLREPLLSGSAAMPASLQ~~RACRL~~LVA~~VCAL~~HL~~GVTL~~VYYLAGRDLSRLPQLVGVSTPLQGGSNSAAAI
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 PMLIEFNMPVDLELVAKQNPVVKMGGRYAPRDCVSPHKVAIIIPFRNRQEHLKYWLYLHPVLQRQQLD
 YGIYVINQAGDTIFNRAKLLNVGFQEALKDYDYTCFVFSVDLIPMNDHNAYRCFSQPRHISVAMDKFGF
 SLPYVQYFGGVSA~~LSKQ~~FLTINGFPNNYWG~~WG~~EDDDIFNRLVFRGMSISRPNAVVGRCRMRHSRD
 KKNEPNPQRFDRIAHTKETMLSDGLNSLT~~YQGL~~DVQRYPLYTQITVDIGTPSDYKDDDDKID*

Figure 5C

ATGAGAGGGTACAAGTTTTGCTGTGATTTCCGGTTACCTCCTCATCTTGGCTGCTGTGCGCCTTCATCTAC
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 CTTGAAGAACAATGAAGCGTCAGACTAGTGCAGTGTGCTGCGCTGCGCGCCTGCCCTGAGGAGTCCCCGC
 TGCTTGTGGGCCCCATGCTGATTGAGTTTAACATGCCTGTGGACCTGGAGCTCGTGGCAAAGCAGAA
 CCCAAATGTGAAGATGGGCGGCCGCTATGCCCCAGGGACTGCGTCTCTCCTCACAAAGGTGGCCAT
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 CAGCGCCAGCAGCTGGACTATGGCATCTATGTTATCAACCAGGCGGGAGACACTATATTCAATCGTG
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 GACGTGGACCTCATTCCAATGAATGACCATAATGCGTACAGGTGTTTTTCACAGCCACGGCACATTT
 CCGTTGCAATGGATAAGTTTGGATTGAGCCTACCTTATGTTGAGTATTTTGGAGGTGTCTCTGCTCTA
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 ATGACATTTTAAACAGATTAGTTTTAGAGGCATGTCTATATCTCGCCCAAATGCTGTGGTCCGGGAGG
 TGTCGCATGATCCGCCACTCAAGAGACAAAGAAAAATGAACCCAATCCTCAGAGGTTTGACCGAATTG
 CACACACAAAGGAGACAATGCTCTCTGATGGTTTGAACCTCACTCACCTACCAGGGGGCTGGATGTACA
 GAGATACCCATTGTATACCCAAATCACAGTGGACATCGGGACACCGAGCGATTACAAGGATGACGAT
 GACAAGATCGATTAG

Figure 5D

MRGYKFCCDFRYLLILAAVAFIYIQMRLEFATQSEYADRLAAIEAENHCTSQTRLLIDQISQQQGRIVALEEQ
 MKRQTSALSLPACPEESPLLVGPMLEFNMPVDLELVAKQNPVVKMGGRYAPRDCVSPHKVAIIIPFRNR
 QEHLKYWLYLHPVLQRQQLDYGIYVINQAGDTIFNRAKLLNVGFQEALKDYDYTCFVFSVDLIPMNDH
 NAYRCFSQPRHISVAMDKFGFSLPYVQYFGGVSAKQQLTINGFPNNYWGWWGGEDDDIFNRLVFRG
 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 CCCCCGGGAC 400
GGCCGGAGGA GAAGCCTGAG GGGGCCAACG GCTCCTCGGC CCGGCGGCCA 450
CCCCGGTACC TCCTGAGCGC CCGGGAGCGC ACGGGGGGCC GAGGCGCCCG 500
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CGGCCGCTCA AGTTCCGGGA GATGCTGACC AATGGCACCT TCGAGTACAT 800
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TCGTGTCCGC CCAGAATGGC GACTTCCCAC GCTGGGGTGA CTACGAGGAC 1350
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CGACGGCAGC CAGCAGGAGT ACCCGCCTGC AGACCCAGC GAGCACATGT 1450
ATGCGCCCAA GTACCTGCTG AAGAACTACG ACCGGTTCCA CTACCTGCTG 1500
GACAACCCCT ACCAGGAGCC CAGGAGCACG GCGGCGGGCG GGTGGCGCCA 1550
CAGGGGTCCC GAGGGAAGGC CGCCCGCCCG GGGCAAATG GACGAGGCGG 1600
AAGTCGAACA AAAACTCATC TCAGAAGAGG ATCTGAATTA G 1641

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Figure 5H

GNTIGNTIII peptide sequence

MRGNKFCCDFRYLLILAAVAFIYTQMRLFATQSEYADRLAAAIEAENHCTSQTRLLIDQ
ISLQQGRIVALEEQMKRQTSSPLLQPLPPSKAAEELHRVDLVLPEDTTEYFVRTKAGGV
CFKPGTKMLERPPPGRPEEKPEGANGSSARRPPRYLLSARERTGGRGARRKWVECVCLP
GWHGPSCGVPTVVQYSNLPTKERLVPREVPRRVINAINVNHEFDLLDVRFHGELGDVVDA
FVVCESNFTAYGEPRPLKFREMLTNGTFEYIRHKVLYVFLDHFPFGGRQDGWIADDYLR
TFLTQDGVSRRLNLRPDDVFIIDDADEIPARDGVLFLKLYDGWTEPFAPFMRKSLYGFF
WKQPGTLEVVSCTVDMLQAVYGLDGIRLRRRQYYTMPNFRQYENRTGHILVQWSLGS
LHFAGWHCSWCFTPEGIYFKLVSAQNGDFPRWGDYEDKRDNLNIRGLIRTGGWFDGTQQ
EYPPADPSEHMYAPKYLLKNYDRFHYLLDNPHYQEPRSTAAGGWRHRGPEGRPPARGKLD
EAEVEQKLI SEEDLN*

Figure 5I**GNTIII peptide sequence**

TSSPLLQPLPPSKAAEELHRVDLVLPEDTTEYFVRTKAGGVCFKPGTKMLERPPPGRPE
EKPEGANGSSARRPPRYLLSARERTGGRGARRKWVECVCLPGWHGPSCGVPTVVQYSNL
PTKERLVPREVPRRVINAINVNHEFDLLDVRFHGELGDVVDAFVVCESNFTAYGEPRPLK
FREMLTNGTFEYIRHKVLYVFLDHFPFGGRQDGWIADDYLRFLTQDGVSRRLNLRPDD
VFIIDDADEIPARDGVLFLKLYDGWTEPFAPFMRKSLYGFFWKQPGTLEVVSCTVDML
QAVYGLDGIRLRRRQYYTMPNFRQYENRTGHILVQWSLGSPLHFAGWHCSWCFTPEGIY
FKLVSAQNGDFPRWGDYEDKRDNLNIRGLIRTGGWFDGTQQEYPPADPSEHMYAPKYLL
KNYDRFHYLLDNPHYQEPRSTAAGGWRHRGPEGRPPARGKLD EAEVEQKLI SEEDLN*

Figure 5K

GNT III

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—
ACTAGTTCGC CCCTGCTGCA GCCGCTGCCG CCCAGCAAGG CGGCCGAGGA 50
GCTCCACCGG GTGGACTTGG TGCTGCCCCA GGACACCACC GAGTATTTCG 100
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GAGAGGCCGC CCCCggGACG GCCGGAGGAG AAGCCTGAGG GGGCCAACGG 200
CTCCTCGGCC CGGCGGCCAC CCCGGTACCT CCTGAGCGCC CGGGAGCGCA 250
CGGGGGGCCG AGGCGCCCCG CGCAAGTGGG TGGAGTGCGT GTGCCTGCCC 300
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ATGGCACCTT CGAGTACATC CGCCACAAGG TGCTCTATGT CTTCTTGGAC 600
CACTTCCCGC CCGGCGGCCG GCAGGACGGC TGGATCGCCG ACGACTACCT 650
GCGCACCTTC CTCACCCAGG ACGGCGTCTC GCGGCTGCGC AACCTGCGGC 700
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GACCCCAGCG AGCACATGTA TGCGCCCAAG TACCTGCTGA AGAACTACGA 1300
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CGGCGGGCGG GTGGCGCCAC AGGGGTCCCG AGGGAAGGCC GCGCGCCCGG 1400
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Figure 5J

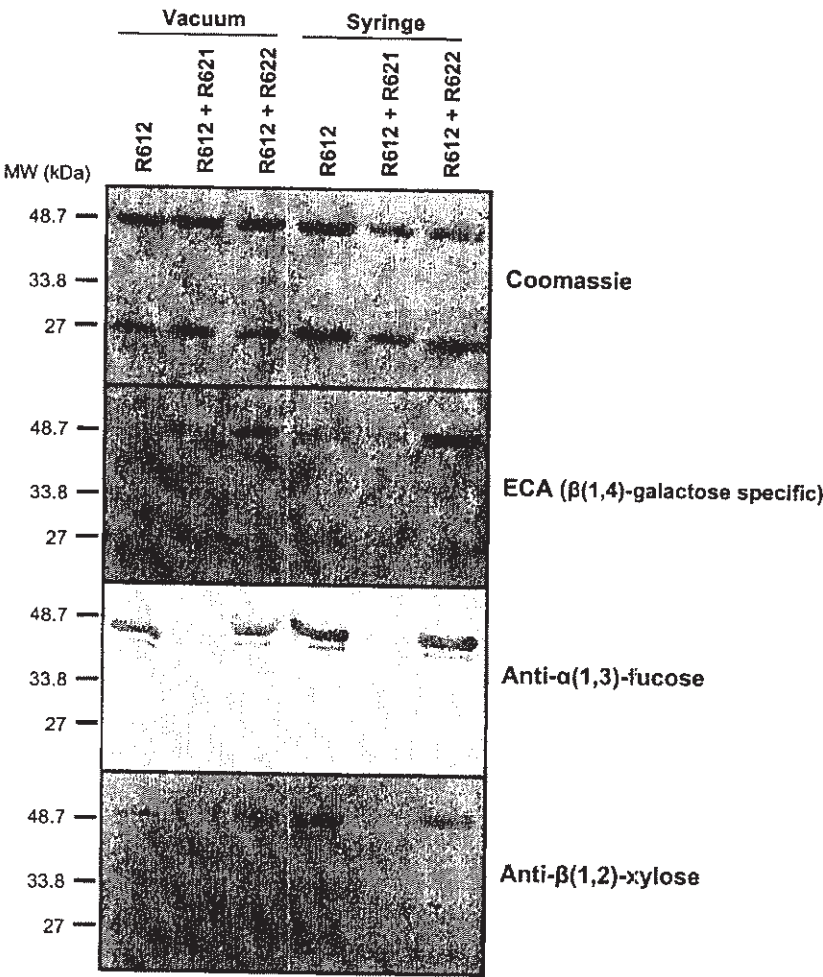


Figure 6

Figure 7A

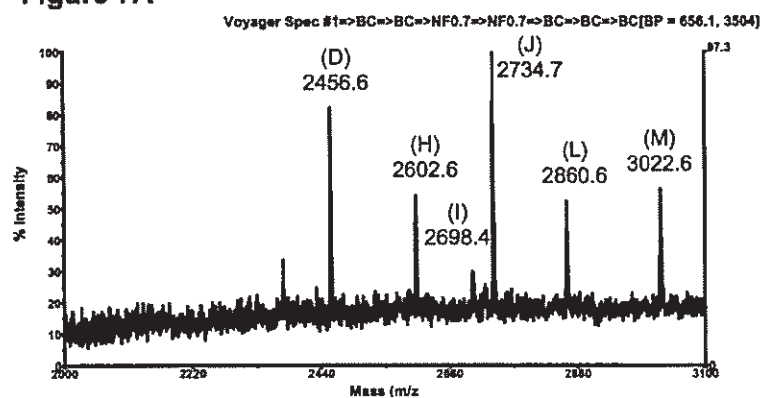


Figure 7 B

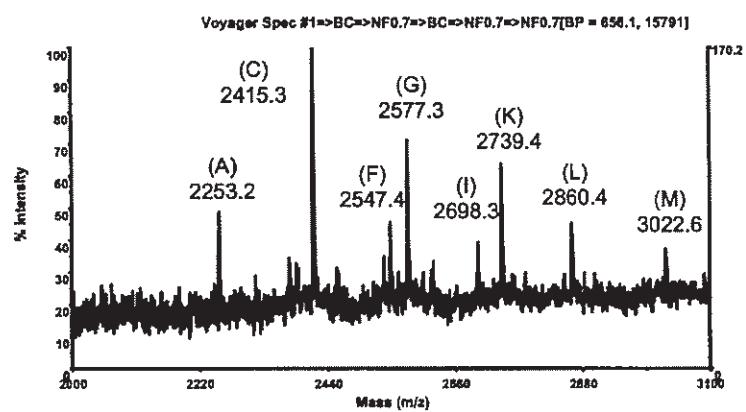


Figure 7C insert

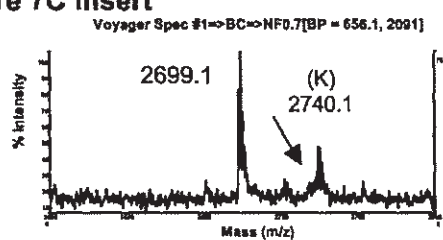


Figure 7C

