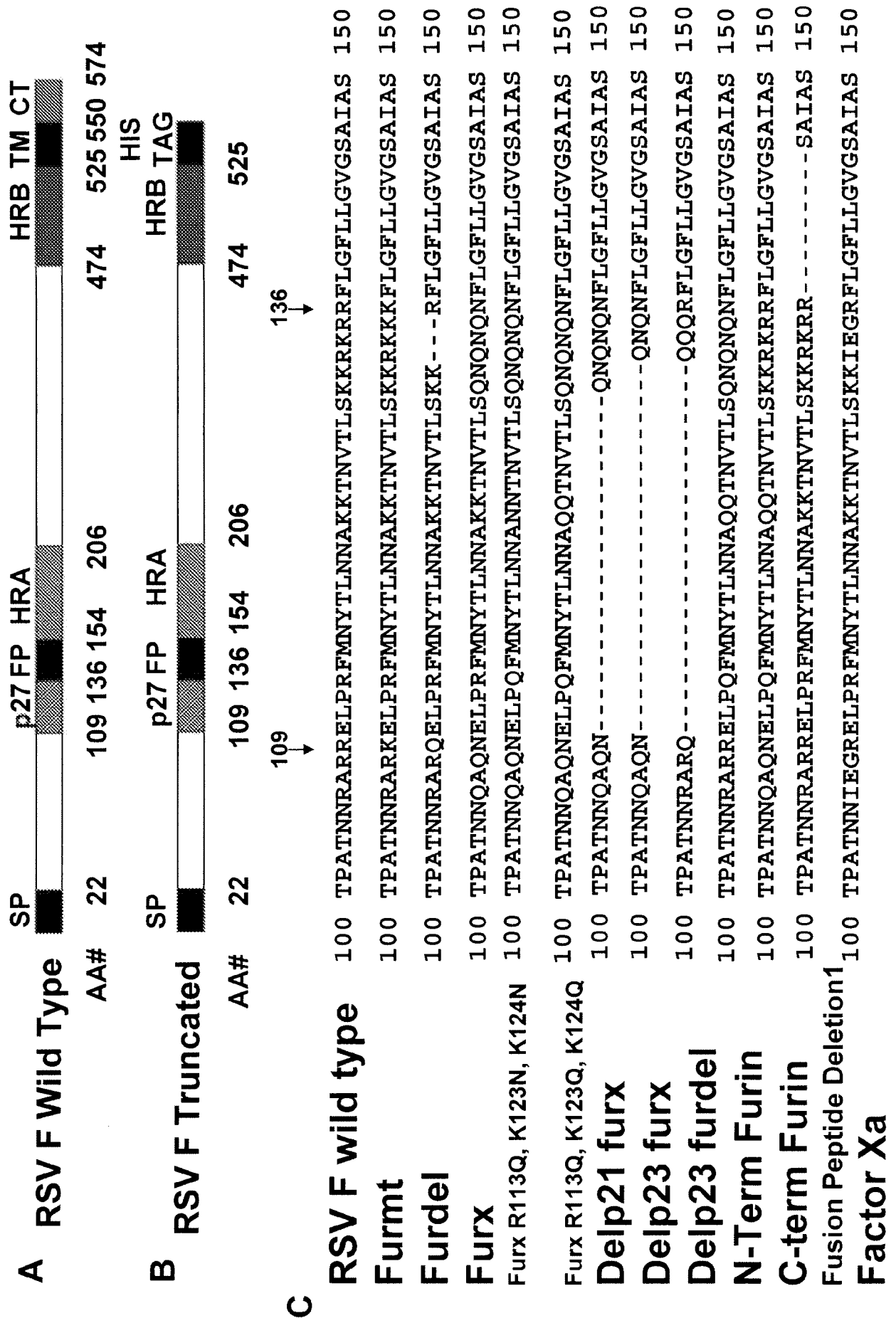


Figure 1



Constructs to Cleave from the Cell Surface

RSV F Wildtype	488	FDASISQVNEKINQSLAFIRKSDLLHNVNAGKSTTN-----	TM-C
Idealized Ent	488	FDASISQINEKINQILAFIRKIDELLHNINAGKSTTNGSGGDDDDKGGSG-----	TM-C
GCN Ent	488	FDASISQVNEKINQSLAFIRKSDLLHNVNDKIEEILSKIYHIENEIARIKKLIGEGSGDDDDKGGSG	TM-C
Idealized FacXa	488	FDASISQINEKINQILAFIRKIDELLHNINAGKSTTNGSGGIEGRGSG-----	TM-C
GCN Thr	488	FDASISQVNEKINQSLAFIRKSDLLHNVNDKIEEILSKIYHIENEIARIKKLIGEGSGGIEGRGSG	TM-C
Idealized Thr	488	FDASISQINEKINQILAFIRKIDELLHNINAGKSTTNGSGGLVPRGSG-----	TM-C
GCN Thr	488	FDASISQVNEKINQSLAFIRKSDLLHNVNDKIEEILSKIYHIENEIARIKKLIGEGSGGLVPRGSG-	TM-C

2/13

TM-C = Transmembrane domain + C-terminal tail =
 IMITTTIIIVIIISLIIVGLLYCKARSTPVTLSKDQLSGINNIAFSN
 Ent = Enterokinase cleavage site - DDDDK
 FacXa = Factor Xa cleavage site - IEGR
 Thr = Thrombin cleavage site - LVPR

Figure 2

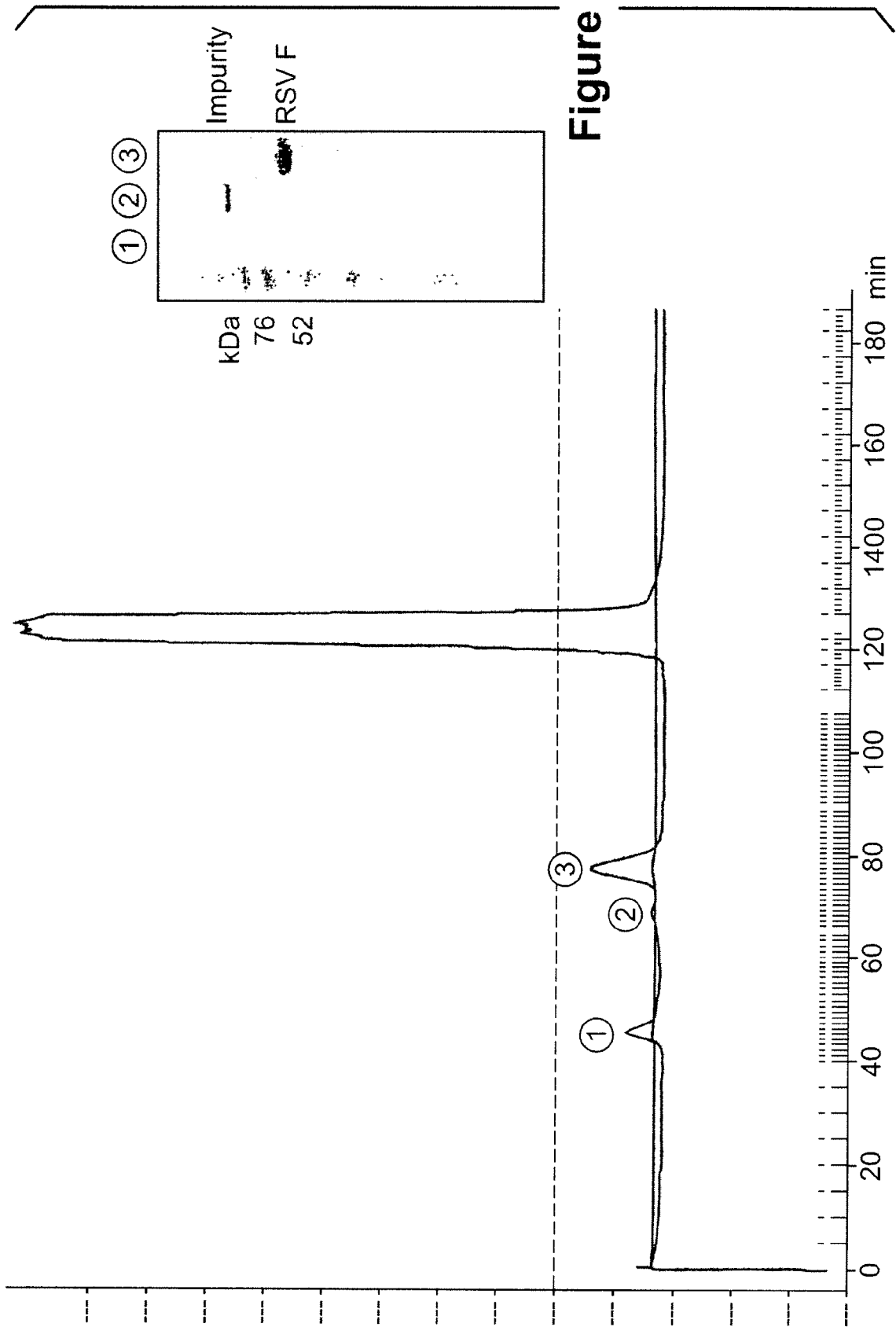


Figure 3

ATAGGCGGCGCATGAGAGAAGCCCAGACCAATTACCTACCCAAAATGGAGAAAGTTCACGTTGACATCGA
GGAAGACAGCCCATTCCTCAGAGCTTTGCAGCGGAGCTTCCCGCAGTTTGAGGTAGAAGCCAAGCAGGTC
ACTGATAATGACCATGCTAATGCCAGAGCGTTTTTCGCATCTGGCTTCAAACTGATCGAAACGGAGGTGG
ACCCATCCGACACGATCCTTGACATTGGAAGTGCGCCCCGCCGAGAATGTATTCTAAGCACAAGTATCA
TTGTATCTGTCCGATGAGATGTGCGGAAGATCCGGACAGATTGTATAAGTATGCAACTAAGCTGAAGAAA
AACTGTAAGGAAATAACTGATAAGGAATTGGACAAGAAAAATGAAGGAGCTCGCCGCCGTCTAGAGCGACC
CTGACCTGGAACTGAGACTATGTGCCTCCACGACGACGAGTCGTGTGCTACGAAGGGCAAGTCGCTGT
TTACCAGGATGTATACGCGGTTGACGGACCGACAAGTCTCTATCACCAGCCAATAAGGGAGTTAGAGTC
GCCTACTGGATAGGCTTTGACACCACCCCTTTTATGTTTAAGAACTTGGCTGGAGCATATCCATCATACT
CTACCAACTGGGCCGACGAAACCGTGTTAACGGCTCGTAACATAGGCCTATGCAGCTCTGACGTTATGGA
GCGGTCACGTAGAGGGATGTCCATTCTTAGAAAGAAGTATTTGAAACCATCCAACAATGTTCTATTCTCT
GTTGGCTCGACCATCTACCACGAGAAGAGGGACTTACTGAGGAGCTGGCACCTGCCGTCTGTATTTCACT
TACGTGGCAAGCAAAATTACACATGTCGGTGTGAGACTATAGTTAGTTGCGACGGGTACGTCGTTAAAAG
AATAGCTATCAGTCCAGGCCTGTATGGGAAGCCTTCAGGCTATGCTGCTACGATGCACCGCGAGGGATTC
TTGTGCTGCAAAGTGACAGACACATTGAACGGGGAGAGGGTCTCTTTTCCCGTGTGCACGTATGTGCCAG
CTACATTGTGTGACCAAATGACTGGCATACTGGCAACAGATGTCAGTGCGGACGACGCGCAAAAACCTGCT
GGTTGGGCTCAACCAGCGTATAGTCGTCAACGGTCGCACCCAGAGAAACACCAATACCATGAAAAATTAC
CTTTTGCCCGTAGTGGCCCAGGCATTTGCTAGGTGGGCAAGGAATATAAGGAAGATCAAGAAGATGAAA
GGCCACTAGGACTACGAGATAGACAGTTAGTCATGGGGTGTGTTGGGCTTTTAGAAGGCACAAGATAAC
ATCTATTTATAAGCGCCCGGATACCCAAACCATCATCAAAGTGAACAGCGATTTCCACTCATTCTGTGCTG
CCCAGGATAGGCAGTAACACATTGGAGATCGGGCTGAGAACAAAGAATCAGGAAAATGTTAGAGGAGCACA
AGGAGCCGTACCTCTCATTACCGCCGAGGACGTACAAGAAGCTAAGTGCGCAGCCGATGAGGCTAAGGA
GGTGCGTGAAGCCGAGGAGTTGCGCGCAGCTCTACCACCTTTGGCAGCTGATGTTGAGGAGCCCACTCTG
GAAGCCGATGTAGACTTGATGTTACAAGAGGCTGGGGCCGGCTCAGTGGAGACACCTCGTGGCTTGATAA
AGGTTACCAGCTACGATGGCGAGGACAAGATCGGCTCTTACGCTGTGCTTTCTCCGAGGCTGTACTCAA
GAGTGAAAAATTATCTTGTCATCCACCCTCTCGCTGAACAAGTCATAGTGATAACACACTCTGGCCGAAAA
GGGCGTTATGCCGTGGAACCATAACCATGGTAAAGTAGTGGTGCCAGAGGGACATGCAATACCCGTCCAGG
ACTTTCAAGCTCTGAGTGAAAGTGCCACCATTGTGTACAACGAACGTGAGTTCGTAAACAGGTACCTGCA
CCATATTGCCACACATGGAGGAGCGCTGAACACTGATGAAGAATATTACAAAACCTGTCAAGCCCAGCGAG
CACGACGGCGAATACCTGTACGACATCGACAGGAAACAGTGCGTCAAGAAAGAACTAGTCACTGGGCTAG
GGCTCACAGGCGAGCTGGTGGATCCTCCCTTCCATGAATTCGCCTACGAGAGTCTGAGAACACGACCAGC
CGCTCCTTACCAAGTACCAACCATAGGGGTGTATGGCGTGCCAGGATCAGGCAAGTCTGGCATCATTAAA
AGCGCAGTCACCAAAAAAGATCTAGTGGTGAGCGCCAAGAAAGAAAACTGTGCAGAAATTATAAGGGACG
TCAAGAAAAATGAAAGGGCTGGACGTCAATGCCAGAACTGTGGACTCAGTGCTCTTGAATGGATGCAACA
CCCCGTAGAGACCCTGTATATTGACGAAGCTTTTGCTTGTCTATGCAGGTACTCTCAGAGCGCTCATAGCC

FIG. 4A

ATTATAAGACCTAAAAAGGCAGTGCTCTGCGGGGATCCCAAACAGTGCGGTTTTTTTAACATGATGTGCC
TGAAAGTGCATTTTAACCACGAGATTTCACACAAGTCTTCCACAAAAGCATCTCTCGCCGTTGCACTAA
ATCTGTGACTTCGGTCGTCTCAACCTTGTTTTACGACAAAAAATGAGAACGACGAATCCGAAAGAGACT
AAGATTGTGATTGACACTACCGGCAGTACCAAACCTAAGCAGGACGATCTCATTCTCACTTGTTTCAGAG
GGTGGGTGAAGCAGTTGCAAATAGATTACAAAGGCAACGAAATAATGACGGCAGCTGCCTCTCAAGGGCT
GACCCGTAAAGGTGTGTATGCCGTTCCGTACAAGGTGAATGAAAATCCTCTGTACGCACCCACCTCAGAA
CATGTGAACGTCCTACTGACCCGCACGGAGGACCGCATCGTGTGGAACAACACTAGCCGGCGACCCATGGA
TAAAAAACTGACTGCCAAGTACCCTGGGAATTTCACTGCCACGATAGAGGAGTGGCAAGCAGAGCATGA
TGCCATCATGAGGCACATCTTGGAGAGACCGGACCCTACCGACGTCTTCCAGAATAAGGCAAACGTGTGT
TGGGCCAAGGCTTTAGTGCCGGTGCTGAAGACCGCTGGCATAGACATGACCACTGAACAATGGAACACTG
TGGATTATTTTGAAACGGACAAAGCTCACTCAGCAGAGATAGTATTGAACCAACTATGCGTGAGGTTCTT
TGGACTCGATCTGGACTCCGGTCTATTTTCTGCACCCACTGTTCCGTTATCCATTAGGAATAATCACTGG
GATAACTCCCCGTCGCCTAACATGTACGGGCTGAATAAAGAAGTGGTCCGTCAGCTCTCTCGCAGGTACC
CACAACCTGCCTCGGGCAGTTGCCACTGGAAGAGTCTATGACATGAACACTGGTACACTGCGCAATTATGA
TCCGCGCATAAACCTAGTACCTGTAAACAGAAGACTGCCTCATGCTTTAGTCTCCACCATAATGAACAC
CCACAGAGTGACTTTTCTTCATTTCGTAGCAAAATGAAGGGCAGAACTGTCTGGTGGTCCGGGAAAAGT
TGTCGGTCCAGGCAAATGGTTGACTGGTTGTGAGACCGGCTGAGGCTACCTTCAGAGCTCGGCTGGA
TTTAGGCATCCCAGGTGATGTGCCCAAATATGACATAATATTTGTTAATGTGAGGACCCCATATAAATAC
CATCACTATCAGCAGTGTGAAGACCATGCCATTAAGCTTAGCATGTTGACCAAGAAAAGCTTGCTGTCATC
TGAATCCCGGCGGAACCTGTGTGAGCATAGGTTATGGTTACGCTGACAGGGCCAGCGAAAGCATCATTGG
TGCTATAGCGCGGCAGTTCAAGTTTTCCCGGGTATGCAAACCGAAATCCTCACTTGAAGAGACGGAAGTT
CTGTTTGTATTTCATTGGGTACGATCGCAAGGCCCCGTACGCACAATCCTTACAAGCTTTCATCAACCTTGA
CCAACATTTATACAGGTTCCAGACTCCACGAAGCCGGATGTGCACCCTCATATCATGTGGTGCAGGGGGA
TATTGCCACGGCCACCGAAGGAGTGATTATAAATGCTGCTAACAGCAAAGGACAACCTGGCGGAGGGGTG
TGCGGAGCGCTGTATAAGAAATTCGCGGAAAGCTTCGATTTACAGCCGATCGAAGTAGGAAAAGCGCGAC
TGGTCAAAGGTGCAGCTAAACATATCATTTCATGCCGTAGGACCAAACCTTCAACAAAGTTTCGGAGGTTGA
AGGTGACAAACAGTTGGCAGAGGCTTATGAGTCCATCGCTAAGATTGTCAACGATAACAATTACAAGTCA
GTAGCGATTCCACTGTTGTCCACCGGCATCTTTTCCGGGAACAAAGATCGACTAACCCAATCATTGAACC
ATTTGCTGACAGCTTTAGACACCCTGATGCAGATGTAGCCATATACTGCAGGGACAAGAAATGGGAAAT
GACTCTCAAGGAAGCAGTGGCTAGGAGAGAAGCAGTGGAGGAGATATGCATATCCGACGACTCTTCAGTG
ACAGAACCTGATGCAGAGCTGGTGAGGGTGCATCCGAAGAGTTCTTTGGCTGGAAGGAAGGGCTACAGCA
CAAGCGATGGCAAAACTTTCTCATATTTGGAAGGGACCAAGTTTACCAGGCGGCCAAGGATATAGCAGA
AATTAATGCCATGTGGCCCCGTGCAACGGAGGCCAATGAGCAGGTATGCATGTATATCCTCGGAGAAAAGC
ATGAGCAGTATTAGGTGAAATGCCCCGTGCAAGAGTGGGAAGCCTCCACACCACCTAGCACGCTGCCTT
GCTTGTGCATCCATGCCATGACTCCAGAAAGAGTACAGCGCCTAAAAGCCTCACGTCCAGAACAAATTAC

FIG. 4B

TGTGTGCTCATCCTTTCCATTGCCGAAGTATAGAATCACTGGTGTGCAGAAGATCCAATGCTCCCAGCCT
ATATTGTTCTCACCGAAAGTGCCTGCGTATATTCATCCAAGGAAGTATCTCGTGGAACACCACCGGTAG
ACGAGACTCCGGAGCCATCGGCAGAGAACCAATCCACAGAGGGGACACCTGAACAACCACCACTTATAAC
CGAGGATGAGACCAGGACTAGAACGCCTGAGCCGATCATCATCGAAGAGGAAGAAGAGGATAGCATAAGT
TTGCTGTCAGATGGCCCGACCCACCAGGTGCTGCAAGTCGAGGCAGACATTCACGGGCGGCCCTCTGTAT
CTAGCTCATCCTGGTCCATTCTCATGCATCCGACTTTGATGTGGACAGTTTATCCATACTTGACACCCT
GGAGGGAGCTAGCGTGACCAGCGGGGCAACGTCAGCCGAGACTAACTCTTACTTCGCAAAGAGTATGGAG
TTTCTGGCGCGACCGGTGCCTGCGCCTCGAACAGTATTCAGGAACCCTCCACATCCCGCTCCGCGCACAA
GAACACCGTCACTTGACCCAGCAGGGCCTGCTCGAGAACCAGCCTAGTTTCCACCCCGCCAGGCGTGAA
TAGGGTGATCACTAGAGAGGAGCTCGAGGCGCTTACCCCGTCACGCACTCCTAGCAGGTGGTCTCGAGA
ACCAGCCTGGTCTCCAACCCGCCAGGCGTAAATAGGGTGATTACAAGAGAGGAGTTTGAGGCGTTCGTAG
CACAACAACAATGACGGTTTGATGCGGGTGATACATCTTTTCCCTCCGACACCGGTCAAGGGCATTTACA
ACAAAAATCAGTAAGGCAAACGGTGCTATCCGAAGTGGTGTGGAGAGGACCGAATTGGAGATTTCTGTAT
GCCCCGCGCCTCGACCAAGAAAAGAAGATTACTACGCAAGAAATTACAGTTAAATCCACACCTGCTA
ACAGAAGCAGATACCAGTCCAGGAAGGTGGAGAACATGAAAGCCATAACAGCTAGACGTATTCTGCAAGG
CCTAGGGCATTATTTGAAGGCAGAAGGAAAAGTGGAGTGCTACCGAACCCCTGCATCCTGTTCTTTGTAT
TCATCTAGTGTGAACCGTGCCTTTTCAAGCCCCAAGGTCGCAGTGGAAGCCTGTAACGCCATGTTGAAAG
AGAACTTTCCGACTGTGGCTTCTTACTGTATTATTCAGAGTACGATGCCTATTTGGACATGGTTGACGG
AGCTTCATGCTGCTTAGACACTGCCAGTTTTTGCCCTGCAAAGCTGCGCAGCTTTCCAAAGAAACACTCC
TATTTGGAACCCACAATACGATCGGCAGTGCCCTTCAGCGATCCAGAACACGCTCCAGAACGTCCTGGCAG
CTGCCACAAAAGAAATTGCAATGTCACGCAAATGAGAGAATTGCCCGTATTGGATTGCGCGGCCCTTTAA
TGTGGAATGCTTCAAGAAATATGCGTGTAATAATGAATATTGGGAAACGTTTAAAGAAAACCCCATCAGG
CTTACTGAAGAAAACGTGGTAAATTACATTACCAAATTAAGAGGACCAAAGCTGCTGCTCTTTTTGCGA
AGACACATAATTTGAATATGTTGCAGGACATACCAATGGACAGGTTTGTAATGGACTTAAAGAGAGACGT
GAAAGTGACTCCAGGAACAAAACATACTGAAGAACGGCCCCAAGGTACAGGTGATCCAGGCTGCCGATCCG
CTAGCAACAGCGTATCTGTGCGGAATCCACCGAGAGCTGGTTAGGAGATTAAATGCGGTCTGCTTCCGA
ACATTCATACACTGTTTGATATGTCGGCTGAAGACTTTGACGCTATTATAGCCGAGCACTTCCAGCCTGG
GGATTGTGTTCTGGAAACTGACATCGCGTCGTTTGATAAAAGTGAGGACGACGCCATGGCTCTGACCGCG
TTAATGATTCTGGAAGACTTAGGTGTGGACGCAGAGCTGTTGACGCTGATTGAGGCGGCTTTCCGCGAAA
TTTCATCAATACATTTGCCCACTAAAATAAATTTAAATTCGGAGCCATGATGAAATCTGGAATGTTCTT
CACACTGTTTGTGAACACAGTCATTAACATTGTAATCGCAAGCAGAGTGTTGAGAGAACGGCTAACCGGA
TCACCATGTGCAGCATTCAATTGGAGATGACAATATCGTGAAAGGAGTCAAATCGGACAAATTAATGGCAG
ACAGGTGCGCCACCTGGTTGAATATGGAAGTCAAGATTATAGATGCTGTGGTGGGCGAGAAAGCGCCTTA
TTTCTGTGGAGGGTTTATTTTGTGTGACTCCGTGACCGGCACAGCGTGCCGTGTGGCAGACCCCTAAAA
AGGCTGTTTAAGCTTGGCAAACCTCTGGCAGCAGACGATGAACATGATGATGACAGGAGAAGGGCATTGC

FIG. 4C

ATGAAGAGTCAACACGCTGGAACCGAGTGGGTATTCTTTCAGAGCTGTGCAAGGCAGTAGAATCAAGGTA
TGAAACCGTAGGAACTTCCATCATAGTTATGGCCATGACTACTCTAGCTAGCAGTGTTAAATCATTTCAGC
TACCTGAGAGGGGGCCCTATAACTCTCTACGGCTAACCTGAATGGACTACGACATAGTCTAGTCGACGCC
ACCATGGAAGTGTGATCCTGAAGGCCAACGCCATCACCACCATCCTGACCGCCGTGACCTTCTGCTTCG
CCAGCGGCCAGAACATCACCAGGAATTCTACCAGAGCACCTGCAGCGCCGTGAGCAAGGGCTACCTGAG
CGCCCTGCGGACCGGCTGGTACACCAGCGTGATCACCATCGAGCTGTCCAACATCAAAGAAAACAAGTGC
AACGGCACCGACGCCAAGGTGAACTGATCAAGCAGGAACTGGACAAGTACAAGAACGCCGTGACCGAGC
TGCAGCTGCTGATGCAGAGCACCCCGCCACCAACAACCGGGCCAGAAGAGAGCTGCCCCGGTTCATGAA
CTACACCCTGAACAACGCCAAGAAAACCAACGTGACCCTGAGCAAGAAGCGGAAGCGGCGGTTCCTGGGC
TTCCTGCTGGGCGTGGGCAGCGCCATCGCCAGCGGGGTGGCCGTGTCCAAGGTGCTGCACCTGGAAGGCG
AGGTGAACAAGATCAAGTCCGCCCTGCTGTCCACCAACAAGGCCGTGGTGTCCCTGAGCAACGGCGTGAG
CGTGTGACCGCAAGGTGCTGGATCTGAAGAACTACATCGACAAGCAGCTGCTGCCCATCGTGAACAAG
CAGAGCTGCAGCATCAGCAACATCGAGACCGTGATCGAGTTCAGCAGAAGAACAACCGGCTGCTGGAAA
TCACCCGGGAGTTCAGCGTGAACGCCGGCGTGACCACCCCGTGAGCACCTACATGCTGACCAACAGCGA
GCTGCTGTCCCTGATCAATGACATGCCCATCACCAACGACCAGAAAAAGCTGATGAGCAACAACGTGCAG
ATCGTGGCGCAGCAGAGCTACTCCATCATGAGCATCATCAAAGAAGAGGTGCTGGCCTACGTGGTGCAGC
TGCCCCCTGTACGGCGTGATCGACACCCCTGCTGGAAGCTGCACACCAGCCCCCTGTGCACCACCAACAC
CAAAGAGGGCAGCAACATCTGCCTGACCCGGACCGACCGGGGCTGGTACTGCGACAACGCCGGCAGCGTG
AGCTTCTTCCCCAAGCCGAGACCTGCAAGGTGCAGAGCAACCGGGTGTCTGCGACACCATGAACAGCC
TGACCCTGCCCTCCGAGGTGAACCTGTGCAACGTGGACATCTTCAACCCCAAGTACGACTGCAAGATCAT
GACCTCCAAGACCGACGTGAGCAGCTCCGTGATCACCTCCCTGGGCGCCATCGTGAGCTGCTACGGCAAG
ACCAAGTGCACCGCCAGCAACAAGAACCGGGGCATCATCAAGACCTTCAGCAACGGCTGCGACTACGTGA
GCAACAAGGGCGTGGACACCGTGAGCGTGGGCAACACACTGTACTACGTGAATAAGCAGGAAGGCAAGAG
CCTGTACGTGAAGGGCGAGCCCATCATCAACTTCTACGACCCCTGGTGTTCCTCCAGCGACGAGTTCGAC
GCCAGCATCAGCCAGGTCAACGAGAAGATCAACCAGAGCCTGGCCTTCATCCGGAAGAGCGACGAGCTGC
TGCACAATGTGAATGCCGGCAAGAGCACCACCAATATCATGATCACCACAATCATCATCGTGATCATTGT
GATCCTGCTGTCTCTGATTGCCGTGGGCTGCTGCTGTACTGCAAGGCCCGCAGCACCCCTGTGACCCTG
TCCAAGGACCAGCTGTCCGGCATCAACAATATCGCCTTCTCCAAGTGAAGTCTAGACGGCGCGCCACCC
AGCGGCCGCATACAGCAGCAATTGGCAAGCTGCTTACATAGAACTCGCGGCGATTGGCATGCCGCCTTAA
AATTTTATTTTATTTTCTTTTCTTTTCCGAATCGGATTTTGTTTTAATATTTCAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAGGGTCGGCATGGCATCTCCACCTCCTCGCGGTCCGACCTGGGCATCCGA
AGGAGGACGCACGTCCACTCGGATGGCTAAGGGAGAGCCACGTTTAAACCAGCTCCAATTGCCCTATAG
TGAGTCGTATTACGCGCGCTCACTGGCCGTGTTTTTACAACGTGCTGACTGGGAAAACCTGGCGTTACC
CAACTTAATCGCCTTGACGACATCCCCCTTTCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACCGATC
GCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGGACGCGCCCTGTAGCGGCGCATTAAGCGCGGC

FIG. 4D

GGGTGTGGTGGTTACGCGCAGCGTGACCGCTACACTTGCCAGCGCCCTAGCGCCCGCTCCTTTTCGCTTTC
TTCCCTTCCTTTCTCGCCACGTTTCGCCGGCTTTCCCCGTCAAGCTCTAAATCGGGGGCTCCCTTTAGGGT
TCCGATTTAGTGCTTTACGGCACCTCGACCCCAAAAACTTGATTAGGGTGATGGTTCACGTAGTGGGCC
ATCGCCCTGATAGACGGTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTTC
CAAACCTGGAACAACACTCAACCCTATCTCGGTCTATTCTTTTGATTTATAAGGGATTTTGCCGATTTTCGG
CCTATTGGTTAAAAAATGAGCTGATTTAACAAAAATTTAACGCGAATTTTAACAAAATATTAACGCTTAC
AATTTAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACATTCAA
ATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGTATGAG
TATTCAACATTTCCGTGTGCGCCCTTATTCCCTTTTTTGCGGCATTTTGCCCTTCCTGTTTTTGCTCACCCA
GAAACGCTGGTGAAAGTAAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAACTGGATC
TCAACAGCGGTAAGATCCTTGAGAGTTTTCGCCCCGAAGAACGTTTTCCAATGATGAGCACTTTTAAAGT
TCTGCTATGTGGCGCGGTATTATCCCGTATTGACGCCGGGCAAGAGCAACTCGGTGCGCGCATACACTAT
TCTCAGAATGACTTGGTTGAGTACTCACCAGTCACAGAAAAGCATCTTACGGATGGCATGACAGTAAGAG
AATTATGCAGTGCTGCCATAACCATGAGTGATAACACTGCGGCCAACTTACTTCTGACAACGATCGGAGG
ACCGAAGGAGCTAACCGCTTTTTTGCACAACATGGGGGATCATGTAACCTCGCCTTGATCGTTGGGAACCG
GAGCTGAATGAAGCCATACCAAACGACGAGCGTGACACCACGATGCCTGTAGCAATGGCAACAACGTTGC
GCAAACCTATTAACCTGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGCGGA
TAAAGTTGCAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAAATCTGGAGCC
GGTGAGCGTGGGTCTCGCGGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTA
TCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCGCTGAGATAGGTGCCTCACT
GATTAAGCATTGGTAACTGTGACACCAAGTTTACTCATATATACTTTAGATTGATTTAAACTTTCATTTT
TAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAATCCCTTAACGTGAGTTTT
CGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGT
AATCTGCTGCTTGCAAACAAAAAACCACCGCTACCAGCGGTGGTTTGTGTTGCCGGATCAAGAGCTACCA
ACTCTTTTTTCCGAAGGTAACCTGGCTTCAGCAGAGCGCAGATACCAAATACTGTTCTTCTAGTGAGCCGT
AGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGT
GGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCG
CAGCGGTGCGGCTGAACGGGGGGTTCGTGCACACAGCCAGCTTGAGCGAACGACCTACACCGAACTGA
GATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGT
AAGCGGCAGGGTCCGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGT
CCTGTGCGGTTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTAT
GGAAAAACGCCAGCAACGCGGCCCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTGCTCACATGTTCTT
TCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCTTTGAGTGAGCTGATACCGCTCGCCGC
AGCCGAACGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAGCGGAAGAGCGCCCAATACGCAAACCGCCTC
TCCCCGCGCGTTGGCCGATTCATTAATGCAGCTGGCACGACAGGTTTCCCGACTGGAAAGCGGGCAGTGA

FIG. 4E

GCGCAACGCAATTAATGTGAGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTCCCGGCT
CGTATGTTGTGTGGAATTGTGAGCGGATAACAATTTACACAGGAAACAGCTATGACCATGATTACGCCA
AGCGCGCAATTAACCCTCACTAAAGGGAACAAAAGCTGGGTACCGGGCCCACGCGTAATACGACTCACTA
TAG

FIG. 4F

CP52	1	10	20	30	40	50	60	70	80	90	100	110	120	130
B	1	10	20	30	40	50	60	70	80	90	100	110	120	130
18537strain	1	10	20	30	40	50	60	70	80	90	100	110	120	130
A2	1	10	20	30	40	50	60	70	80	90	100	110	120	130
Long	1	10	20	30	40	50	60	70	80	90	100	110	120	130
Consensus	1	10	20	30	40	50	60	70	80	90	100	110	120	130
CP52	131	140	150	160	170	180	190	200	210	220	230	240	250	260
B	131	140	150	160	170	180	190	200	210	220	230	240	250	260
18537strain	131	140	150	160	170	180	190	200	210	220	230	240	250	260
A2	131	140	150	160	170	180	190	200	210	220	230	240	250	260
Long	131	140	150	160	170	180	190	200	210	220	230	240	250	260
Consensus	131	140	150	160	170	180	190	200	210	220	230	240	250	260
CP52	261	270	280	290	300	310	320	330	340	350	360	370	380	390
B	261	270	280	290	300	310	320	330	340	350	360	370	380	390
18537strain	261	270	280	290	300	310	320	330	340	350	360	370	380	390
A2	261	270	280	290	300	310	320	330	340	350	360	370	380	390
Long	261	270	280	290	300	310	320	330	340	350	360	370	380	390
Consensus	261	270	280	290	300	310	320	330	340	350	360	370	380	390
CP52	391	400	410	420	430	440	450	460	470	480	490	500	510	520
B	391	400	410	420	430	440	450	460	470	480	490	500	510	520
18537strain	391	400	410	420	430	440	450	460	470	480	490	500	510	520
A2	391	400	410	420	430	440	450	460	470	480	490	500	510	520
Long	391	400	410	420	430	440	450	460	470	480	490	500	510	520
Consensus	391	400	410	420	430	440	450	460	470	480	490	500	510	520
CP52	521	530	540	550	560	570	574							
B	521	530	540	550	560	570	574							
18537strain	521	530	540	550	560	570	574							
A2	521	530	540	550	560	570	574							
Long	521	530	540	550	560	570	574							
Consensus	521	530	540	550	560	570	574							

Figure 5

Figure 6: Typical SEC purification chromatograms of select RSV F Antigens

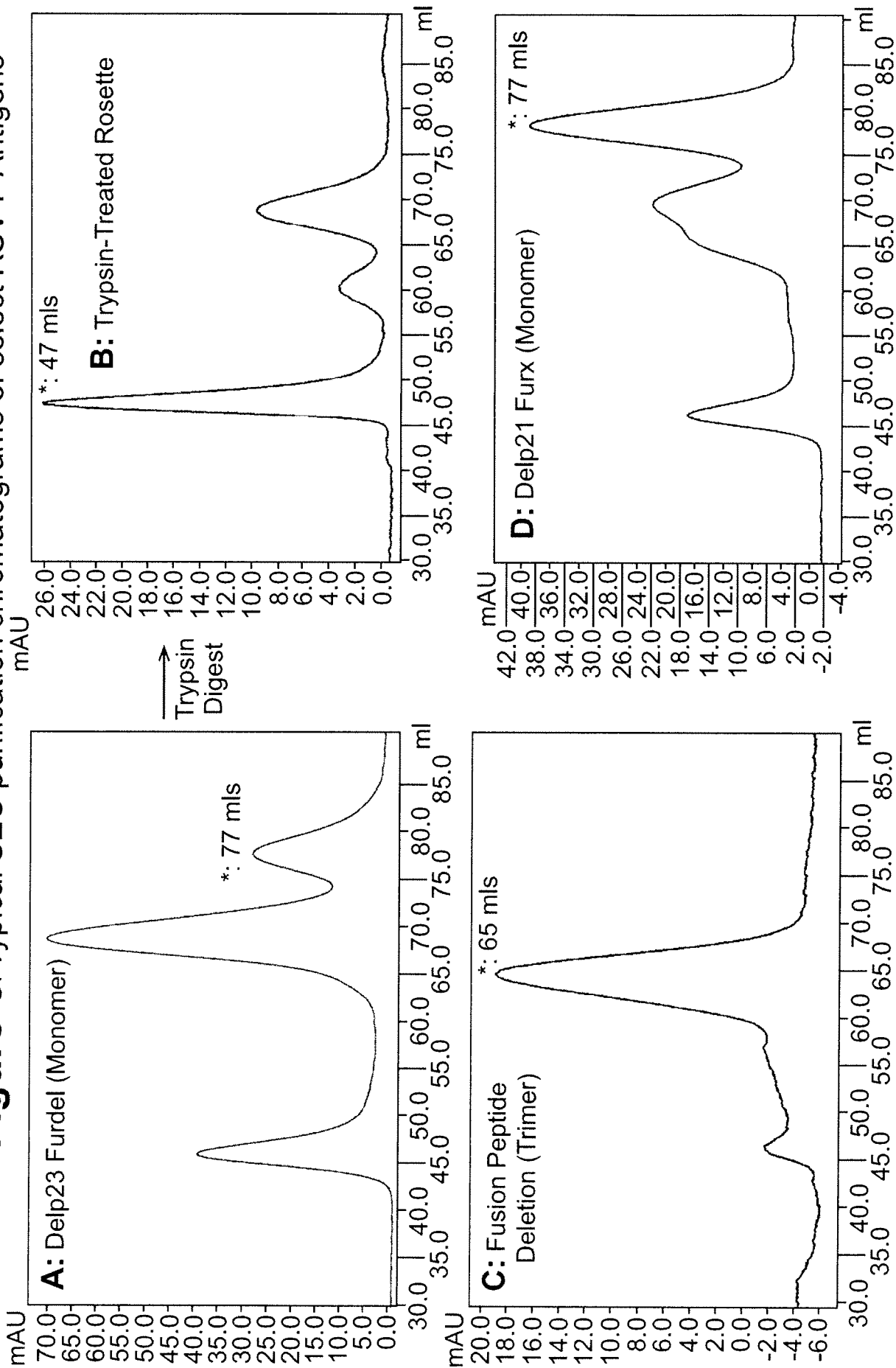


Figure 7: EM and SDS-PAGE analysis of RSV F antigen

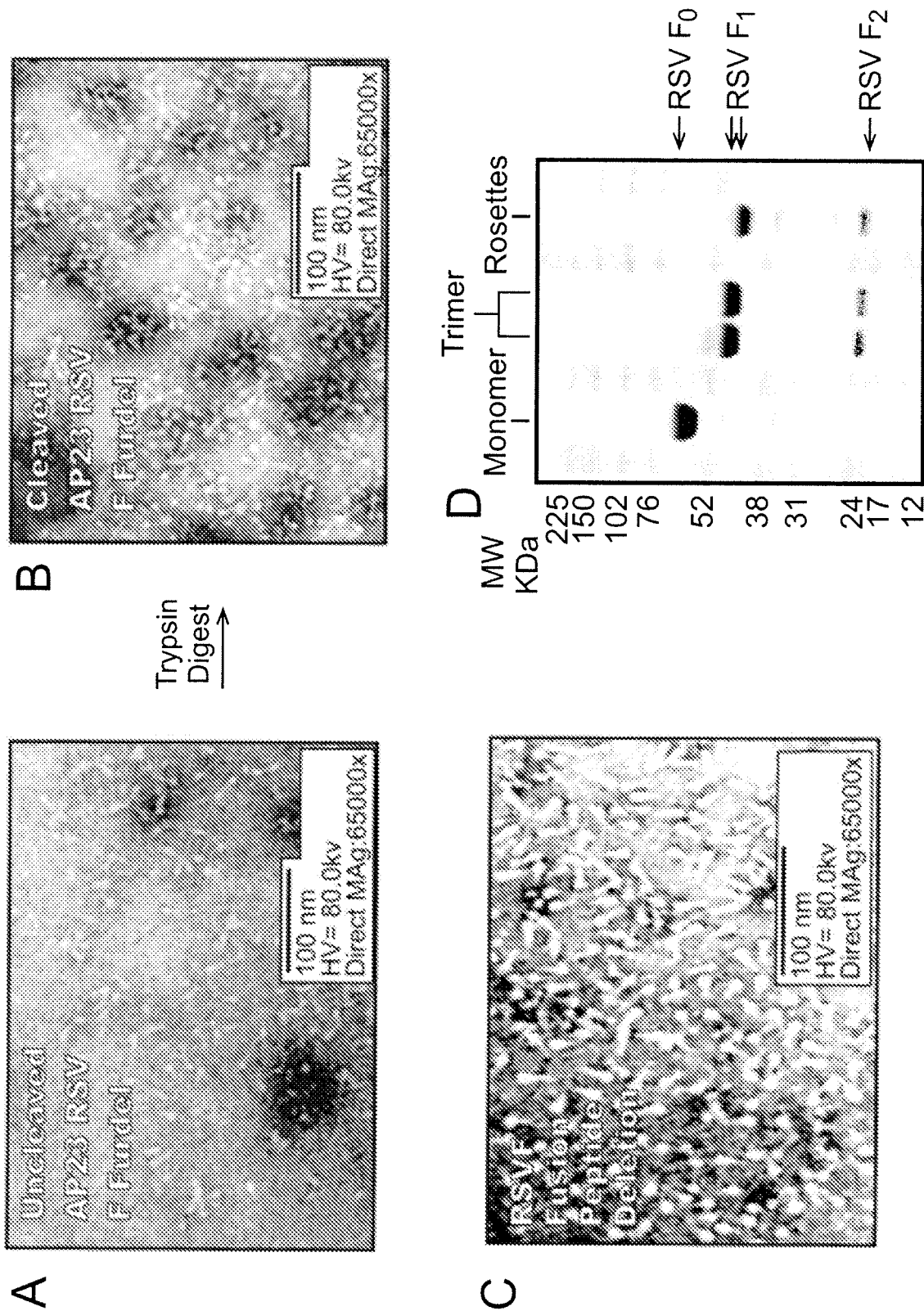


Figure 8: RSV-F subunit immunogenicity in cotton rats

