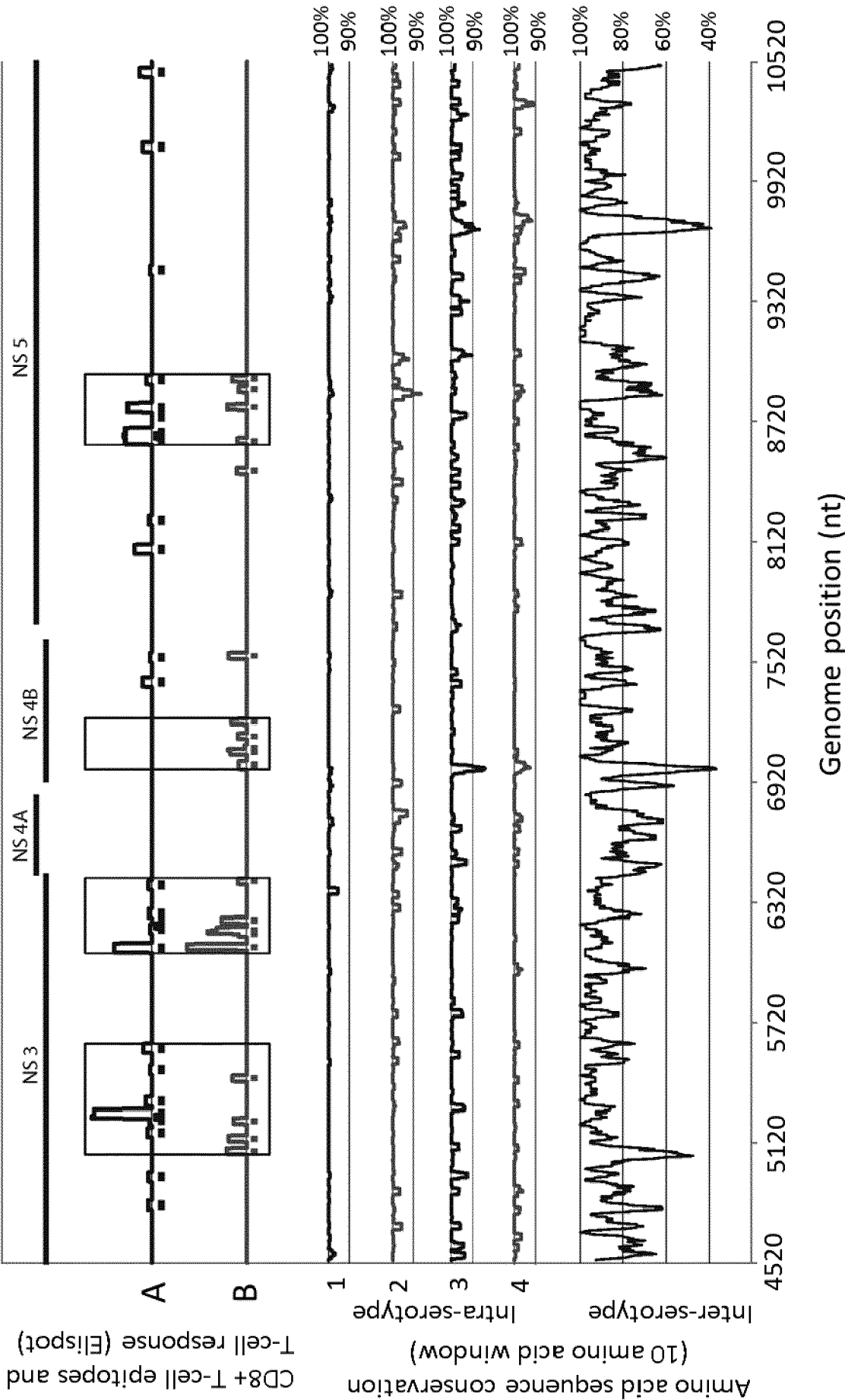


Selected regions

Figure 1



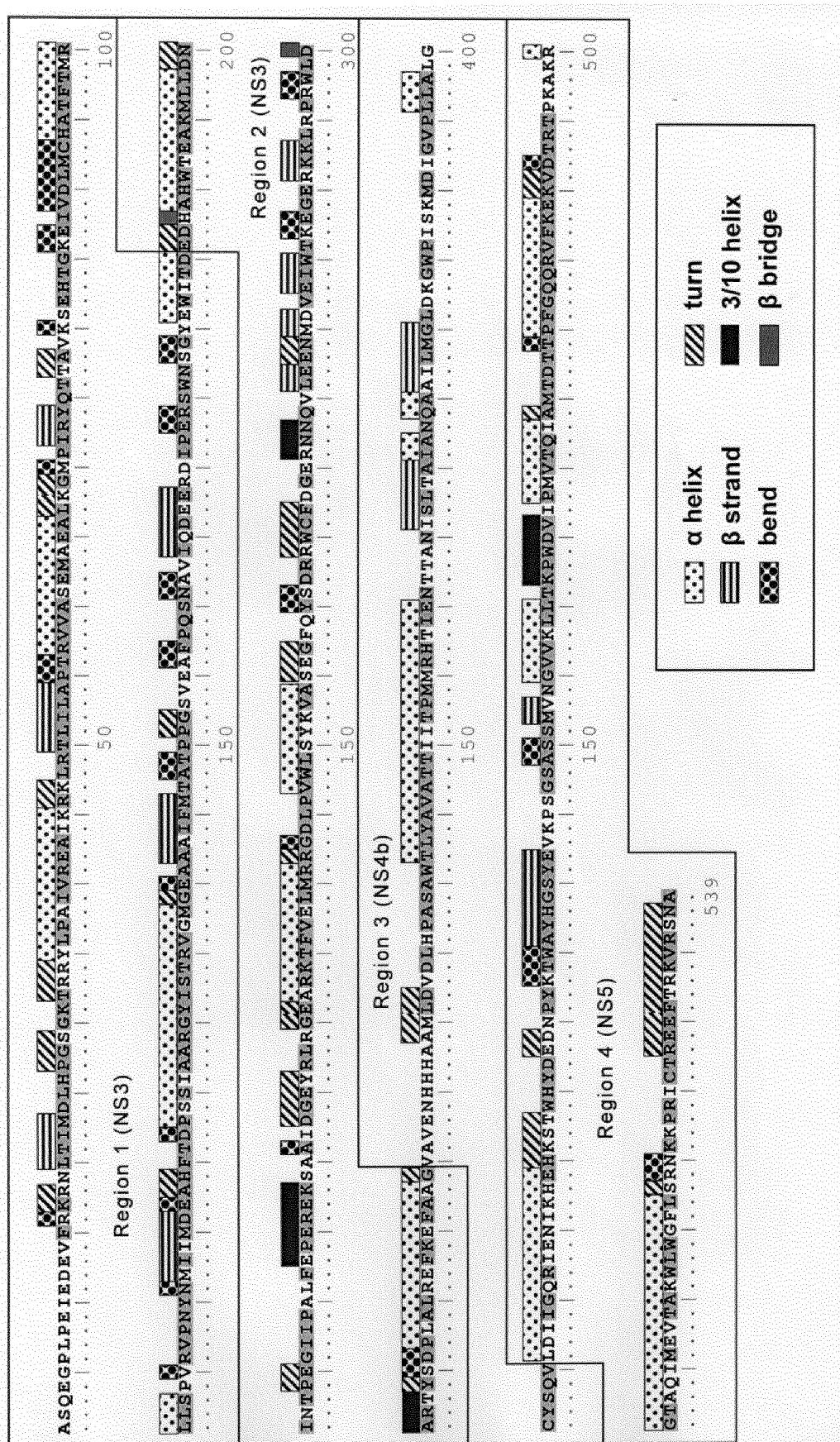


Figure 2

- **Amino acid sequence of DENV2-NS polyepitope**

KSIEDNPEIEDDIFRKKRLTIMDLHPGAGKTKRYLPAIVREAIKRLRTLILAPTRVVAAEMEEALRGLPIRYQ
TPAIRAEHTGREIVDLMCHATFTMRLLSPVRVPNYNLIIMDEAHFTDPASIAARGYISTRVEMGEAAGIFM
TATPPGSRDPFPQSNAPIMDEEREIPERSWNSGHEWVTDEDCAHWKEAKMLLDNINTPEGIIPSMFEPE
REKVDAIDGEYRLRGEARKTFVDLMRRGDLPVWLAYKVAAEGINYADRRWCFDGIKNNQILEENVEVEI
WTKEGERKKLKPRWLDARIYSDPLALKEFKEFAAGITTQESNILDIDLRPASAWTLYAVATTFVTPMLRH
SIENSSVNVSLTAIANQATVLMGLGKGWPLSKMDIGVPLLAIGCYSQVLDIIGKRIEKIKQEHETSWHYDQ
DHPYKTWAYHGSYETKQTGSASSMVNGVVRLLTKPWDVVPMTQMAMTDTTTFFGQQRVFKEKVDTR
TQEPKEGTTKLMKITAEWLWKELGKKKTTPRMCTREEFTRKVRNSA

- **Amino acid sequence of DENV3-NS polyepitope**

AEPDGPTPELEEEEMFKKRNLTIMDLHPGSGKTRKYLPAIVREAIKRRRLRTLILAPTRVVAAEMEEALKGLPIR
YQTTATKSEHTGREIVDLMCHATFTMRLLSPVRVPNYNLIIMDEAHFTDPASIAARGYISTRVGMGEAAAI
FMTATPPGTADAFPQSNAPIQDEERDIPERSWNSGNEWITDEDHAHWTEAKMLLDNINTPEGIIPALFE
PEREKSAIDGEYRLKGESRKTFVELMRRGDLPVWLAHKVASEGIKYTDRKWCFDGGRRNNQILEENMDV
EIWTKEGEKKLRPRWLDARTYSDPLALKEFKDFAAGEPGVVSPTSYPDVDLHPASAWTLYAVATTVITP
MLRHTIENSTANVSLAAIANQAVVLMGLDKGWPIKMDLGVPLLAGCYSQVMDVIGERIKRIKEEHNST
WHYDDENPYKTWAYHGSYEVKATGSASSMINGVVKLLTKPWDVVPMTQMAMTDTTTFFGQQRVFK
EKVDTRTPRSMPGTRRRVMGITAEWLWRTLGRNKKPRLCTREEFTKKVRTNA

- **Amino acid sequence of DENV4-NS polyepitope**

RIGEPDYEVDDEDIFRKKRLTIMDLHPGAGKTKRILPSIVREALKRRRLRTLILAPTRVVAAEMEEALRGLPIRYQ
TPAVKSEHTGREIVDLMCHATFTTRLLSSTRVPNYNLIVMDEAHFTDPSSVAARGYISTRVEMGEAAAI
MTATPPGATDPPQSNPIEDIEREIPERSWNTGFDWITDEDHAHWTEAKMLLDNIYTPEGIIPTLFGPER
EKTQAIDGEFRLRGEQRKTFVELMRRGDLPVWLSYKVASAGISYKDREWCFTGERNNQILEENMEVEIW
TREGKKKKLRPRWLDARVYADPMALKDFKEFASGVKTETTILDVDLRPASAWTLYAVATTILTPMLRHTIE
NTSANLSLAAIANQAAVLMGLGKGWPLHRMDLGVPLLAMGCYSQVMTIIGRRRLQLQEEHKETWHYD
QENPYRTWAYHGSYEAPSTGSASSMVNGVVKLLTKPWDVIPMVTQLAMTDTTTFFGQQRVFKEKVDTR
TPQPKPGTRMVMTTTANWLWALLGKKKNPRLCTREEFISKVRNSA

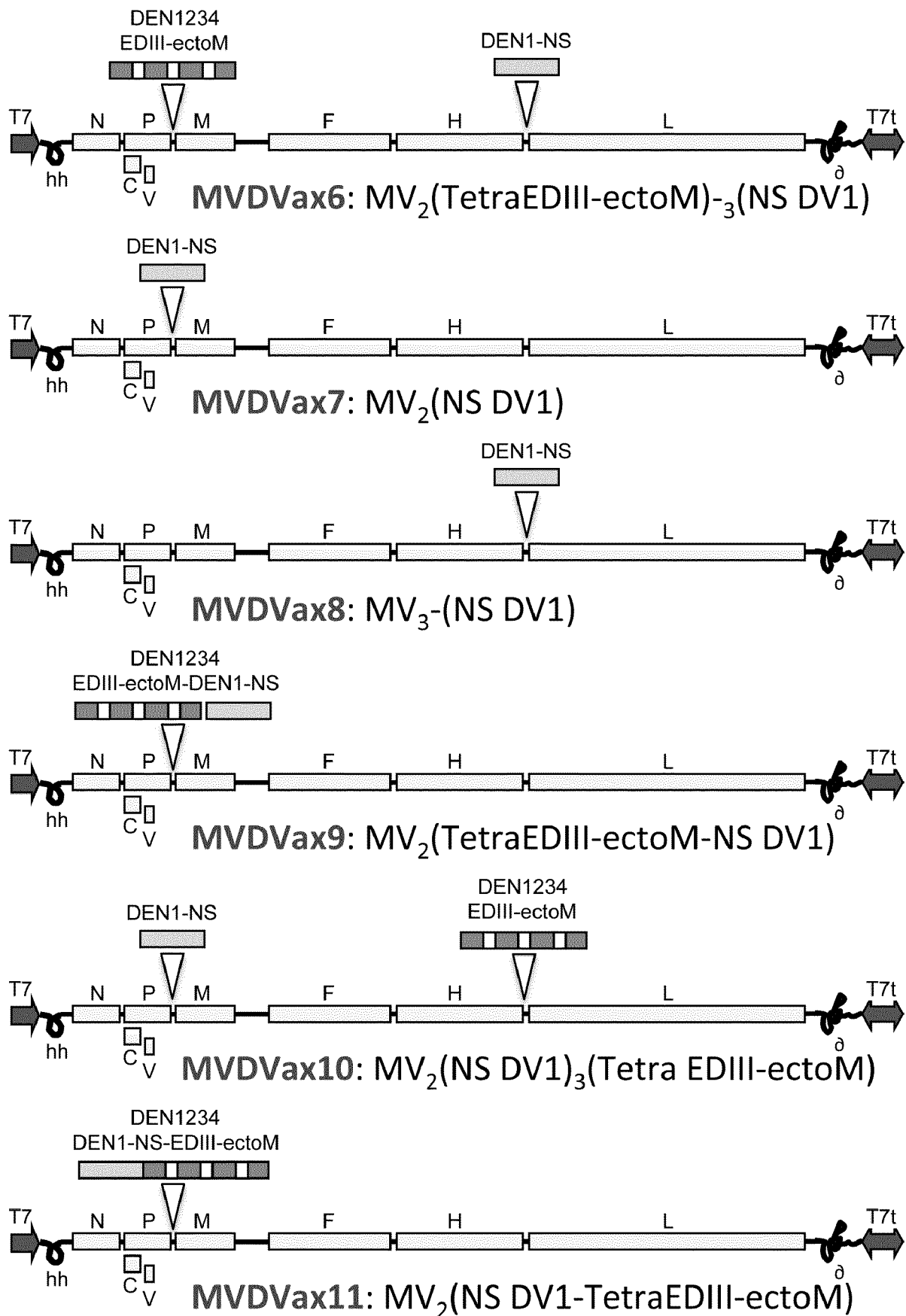
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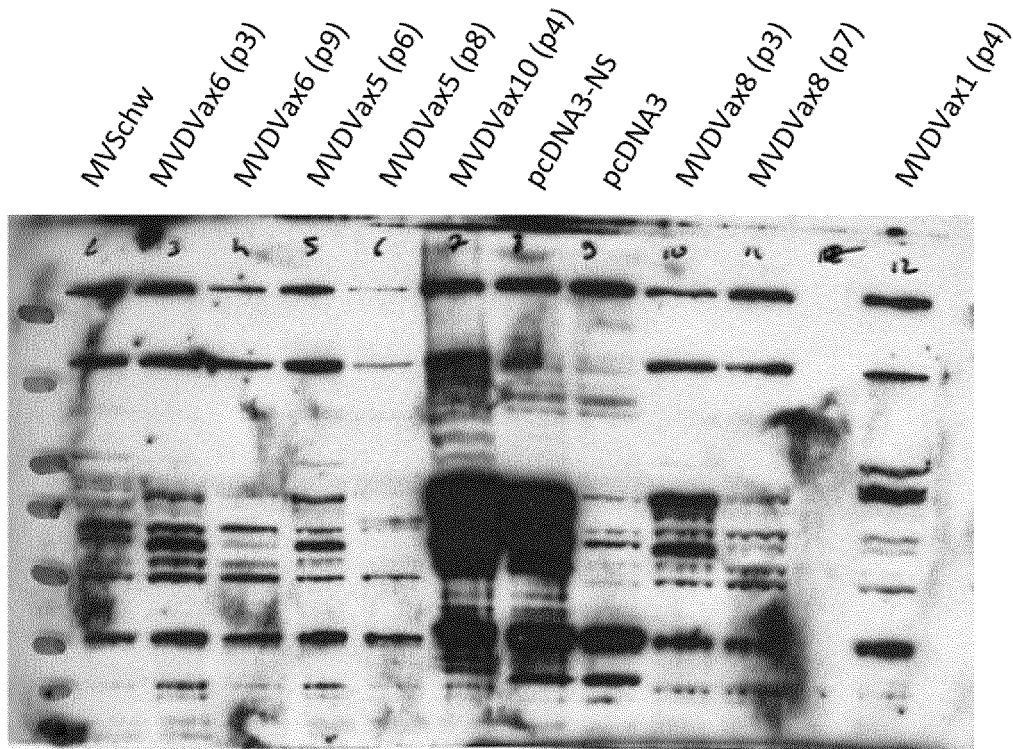
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CAGGGAAAACAAGAAGATATCTCCCAGCCATAGTCCGTGAGGCCATAAAA	
AGGAAGCTGCGCACACTAATTTTGGCTCCCACAAGGGTTGTGCTTCCGA	
AATGGCAGAGGCGCTCAAGGGAATGCCAATAAGGTACCAAACAACAGCAG	
TGAAGAGTGAACACACAGGAAAAGAGATAGTTGACCTCATGTGCCACGCC	
ACTTTCACCATGCGTCTCCTGTCTCCCGTGAGAGTTCCCAATTACAACAT	Region 1
GATTATTATGGATGAAGCACATTTACCGATCCATCCAGTATAGCAGCCA	(NS3)
GAGGGTACATCTCAACCCGAGTGGGCATGGGTGAAGCAGCTGCGATCTTC	
ATGACAGCCACTCCTCCAGGATCAGTGGAGGCCTTCCACAGAGCAATGC	
AGTTATCCAAGATGAGGAAAGAGACATTCCTGAGAGATCATGGAACCTCAG	
GATATGAGTGGATCACTGACGAGGACCATGCTCATTGGACAGAAGCAAAA	
ATGCTCCTTGACAACATAAACACACCAGAAGGAATTATCCCAGCTCTCTT	
TGAGCCGGAGAGAGAAAAGAGTGCAGCAATAGACGGGGAGTACAGACTGC	
GGGGAGAAGCAAGGAAAACGTTTCGTGGAGCTCATGAGAAGAGGAGATTTA	Region 2
CCAGTTTGGCTATCTTACAAAGTTGCCTCAGAAGGCTTCCAATACTCCGA	(NS3)
TAGAAGGTGGTGCTTTGATGGAGAAAGGAACAACCAGGTGTTGGAGGAAA	
ACATGGACGTGGAGATCTGGACAAAGGAGGGAGAAAGAAAGAAATTACGA	
CCCCGCTGGTTGGACGCCAGAACATACTCTGATCCACTGGCCCTGCGCGA	
GTTCAAAGAGTTTCGCAGCAGGA	
GTGGCTGTTGAAAATCACCACCATGCCG	
CAATGCTGGACGTAGACTTACATCCAGCTTCAGCCTGGACCCTCTATGCA	
GTGGCCACAACAATTATCACTCCCATGATGAGGCACACAATAGAAAACAC	Region 3
AACGGCAAACATTTCCCTGACAGCCATTGCAAACCAGGCGGCTATATTGA	(NS4b)
TGGGACTTGACAAAGGATGGCCAATATCGAAGATGGACATAGGAGTTCCA	
CTTCTCGCCTTGGGGTGCTATTCCCAGGTG	
CTGGATATCATTGGCCAGAG	
GATAGAGAACATAAAACATGAACATAAGTCAACATGGCATTATGATGAGG	
ACAATCCATATAAAACATGGGCCTATCACGGATCATATGAGGTCAAGCCA	
TCAGGATCAGCCTCATCCATGGTCAATGGCGTGGTGAACTGCTCACCAA	
ACCATGGGATGTCATCCCCATGGTCACACAAATAGCCATGACTGACACCA	Region 4
CACCCTTTGGACAACAGAGGGTGTTCAAAGAGAAAGTTGACACGCGCACA	(NS5)
CCAAAAGCAAAACGAGGCACAGCACAAATCATGGAGGTGACAGCCAAATG	
GTTATGGGGTTTTCTTTCTAGAAACAAAAACCAAGAATTTGTACAAGAG	
AGGAGTTCACAAGAAAAGTCAGGTCAAACGCA	

Figure 5

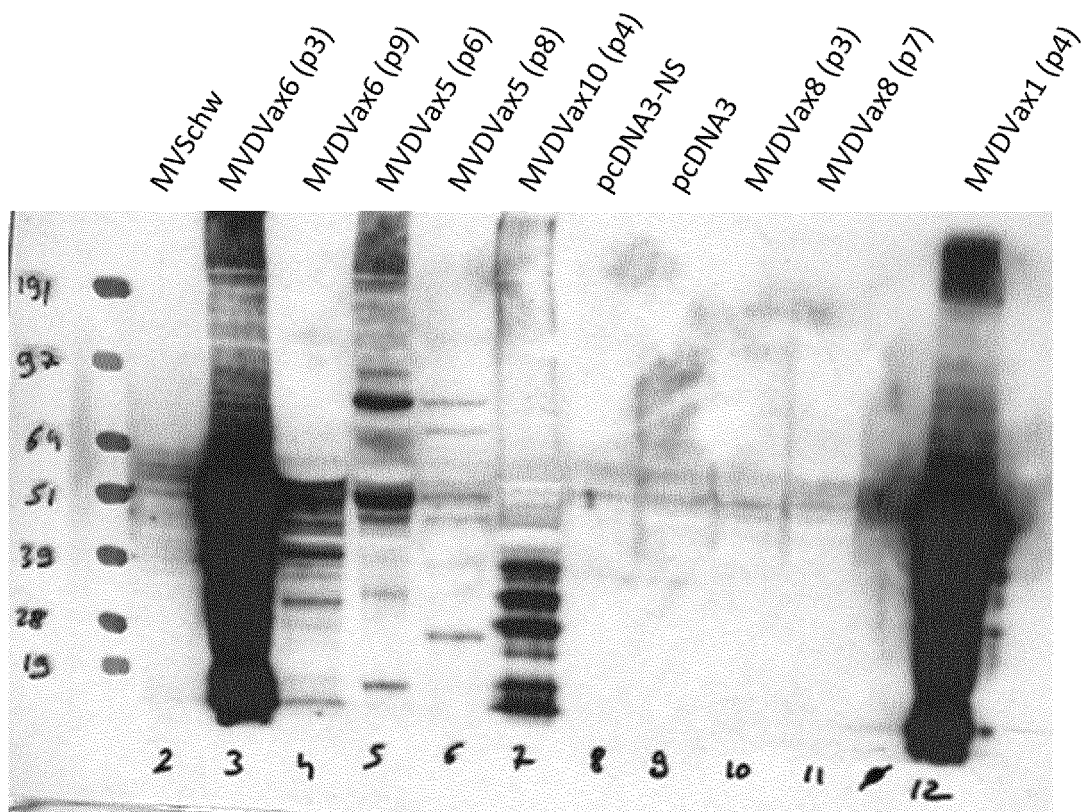
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CGAAGTGTTTAGAAAGCGAAATCTGACTATTATGGACCTGCACCCCGGAT	Region 1 (NS3)
CTGGCAAGACCCGGAGATACCTGCCAGCCATCGTGAGGGAGGCTATTAAG	
CGGAAACTGAGAACACTGATCCTGGCCCCAACTCGCGTGGTCGCTTCCGA	
AATGGCTGAGGCCCTGAAAGGCATGCCCATCCGGTATCAGACCACAGCAG	
TGAAGTCTGAACATACCGGCAAGGAGATTGTGGACCTGATGTGCCACGCC	
ACTTTCACCATGCGACTGCTGAGCCCAGTGCGGGTCCCCAACTACAATAT	
GATCATTATGGACGAGGCCCACTTTACTGATCCCAGCTCCATCGCCGCTA	
GAGGATATATTTCCACCAGGGTGGGAATGGGCGAGGCAGCAGCTATCTTC	
ATGACAGCAACTCCCCCTGGCAGCGTGGAGGCATTTCTCAGTCCAACGC	
CGTCATCCAGGACGAGGAGCGGGACATTCTGAGCGGAGCTGGAATTCTG	
GGTACGAATGGATCACAGACGAGGATCATGCACACTGGACTGAAGCCAAG	Region 2 (NS3)
ATGCTGCTGGACAACATTAATACTCCTGAGGGAATCATTCCAGCTCTGTT	
CGAGCCCGAAAGAGAGAAGTCTGCAGCCATCGACGGCGAGTATAGACTGA	
GGGGAGAGGCCCGGAAGACCTTCGTGGAACCTGATGAGGCGCGGCGATCTG	
CCCGTGTGGCTGAGTTACAAGGTCGCTTCAGAGGGATTCCAGTATAGTGA	
CCGACGGTGGTGCTTTGATGGCGAACGCAACAATCAGGTGCTGGAGGAGA	
ACATGGATGTGAGATTTGGACAAAGGAAGGCGAGCGGAAGAACTGCGC	
CCACGATGGCTGGACGCTCGGACTTACAGCGATCCCCTGGCACTGAGAGA	
ATTCAAAGAGTTTGCTGCAGGGGTGGCCGTCGAGAATCACCATCACGCCG	
CTATGCTGGACGTGGATCTGCATCCTGCCAGTGCTTGGACCCTGTATGCA	
GTGGCCACTACCATCATTACCCCAATGATGCGCCACACAATCGAGAACAC	Region 3 (NS4b)
AACTGCCAATATCTCACTGACAGCTATTGCAAACCAGGCAGCCATTCTGA	
TGGGACTGGACAAAGGCTGGCCCATCAGCAAGATGGATATTGGCGTGCCT	
CTGCTGGCCCTGGGGTGTTACAGTCAGGTGCTGGACATCATTGGCCAGAG	
GATCGAGAACATTAAGCATGAGCACAAATCAACCTGGCATTACGACGAAG	
ATAATCCCTATAAGACATGGGCCTACCACGGAAGCTATGAGGTGAAACCT	Region 4 (NS5)
TCAGGCAGCGCCAGCAGCATGGTCAACGGGGTGGTCAAGCTGCTGACCAA	
ACCTTGGGACGTGATCCCAATGGTCACTCAGATTGCCATGACCGATACCA	
CCCCATTTCGGCCAGCAGCGGGTGTTCAAGGAGAAGGTGGACACCCGCACA	
CCTAAGGCTAAACGAGGGACTGCACAGATCATGGAGGTGACCGCCAAGTG	
GCTGTGGGGATTCTGTCCAGGAACAAGAAGCCAAGAATCTGTACCAGGG	
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Figure 6

**Figure 7**



Anti-NS3 DV1 (1/300)

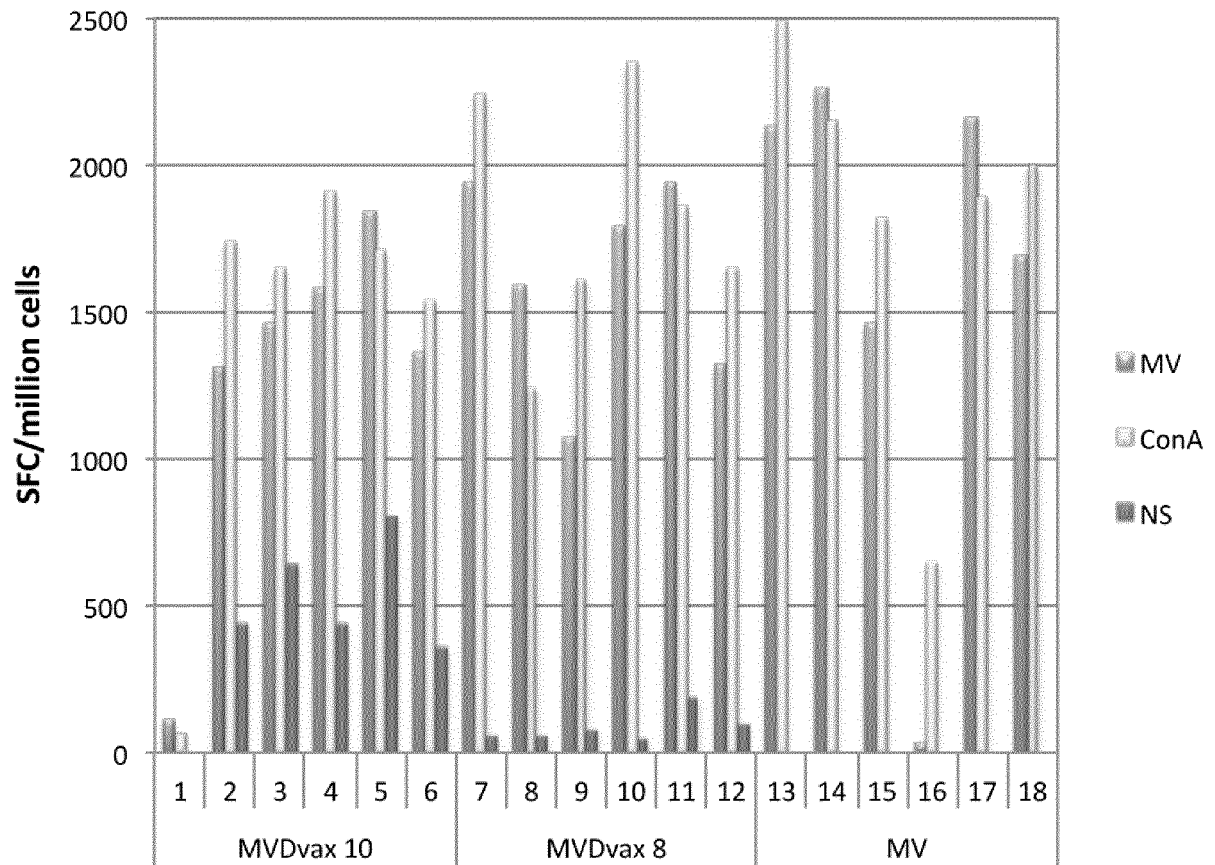


Anti-EDIII DV1 (4E11, 1/1000)

Figure 8

Peptide	Sequence	
1	VKSEHTGKEIVDLMC	Pool 1
2	HTGKEIVDLMCHATF	
3	EIVDLMCHATFTMRL	
4	LMCHATFTMRLLSPV	
5	ATFTMRLLSPVRVPN	
6	MRLLSPVRVPNYNMI	
7	EFKEFAAGVAVENHH	
8	FAAGVAVENHHHAAM	
9	VAVENHHHAAMLDVD	
10	NHHHAAMLVDLHPA	
11	AAMLVDLHPASAWT	
12	DVDLHPASAWTLYAV	
13	HPASAWTLYAVATTI	
14	AWTLYAVATTIITPM	
15	YAVATTIITPMMRHT	
16	TTIITPMMRHTIENT	
17	TPMMRHTIENTTANI	
18	RHTIENTTANISLTA	
19	ENTTANISLTAIANQ	
20	ANISLTAIANQAAIL	
21	GWPISKMDIGVPLLA	Pool 2
22	SKMDIGVPLLALGCY	
23	IGVPLLALGCYSQVL	
24	DEDNPYKTWAYHGSY	
25	PYKTWAYHGSYEVKP	
26	WAYHGSYEVKPSGSA	
27	GSYEVKPSGSASSMV	
28	VKPSGSASSMVNGVV	
29	GSASSMVNGVVKLLT	
30	SMVNGVVKLLTKPWD	
31	GVVKLLTKPWDVIPM	
32	LLTKPWDVIPMVTQI	
33	PWDVIPMVTQIAMTD	
34	IPMVTQIAMTDTTPF	
35	TQIAMTDTTPFGQQR	
36	MTDTTPFGQQRVFKE	
37	FTMRLLSPV	
38	VAVENHHHAAM	
39	LYAVATTI	
40	TAIANQAAI	
41	SSMVNGVVKL	

Figure 9

**Figure 10**

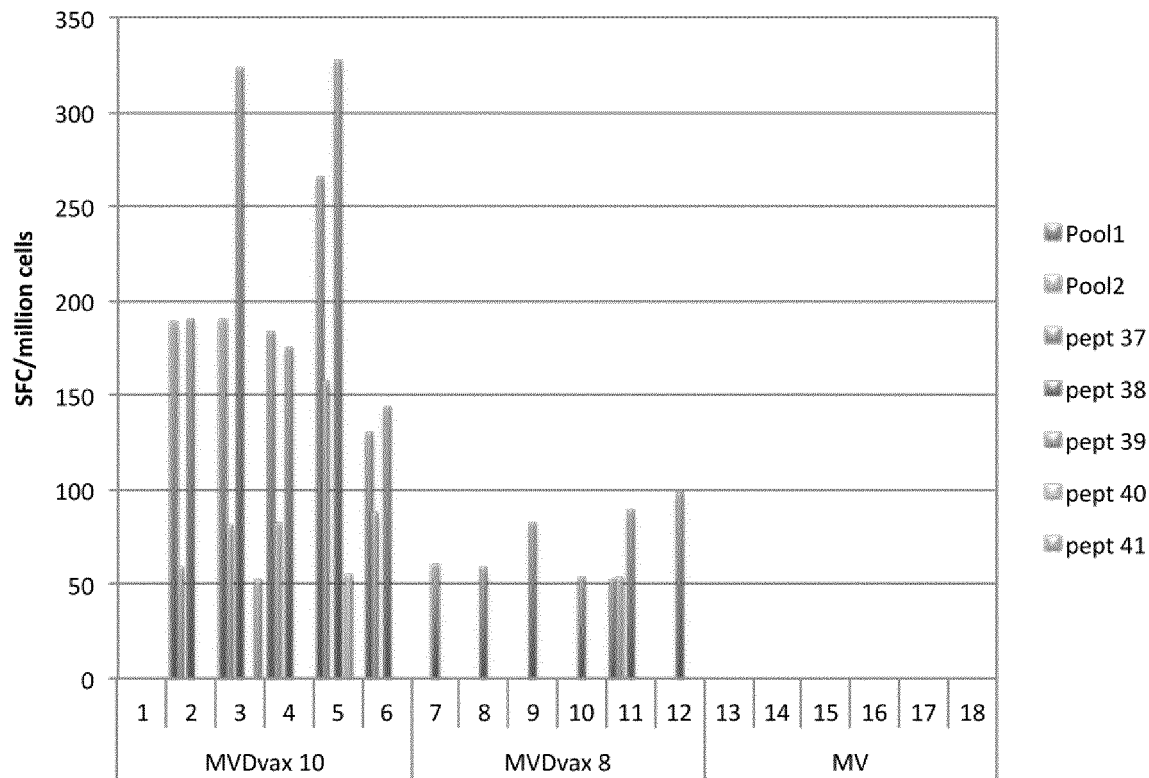


Figure 11

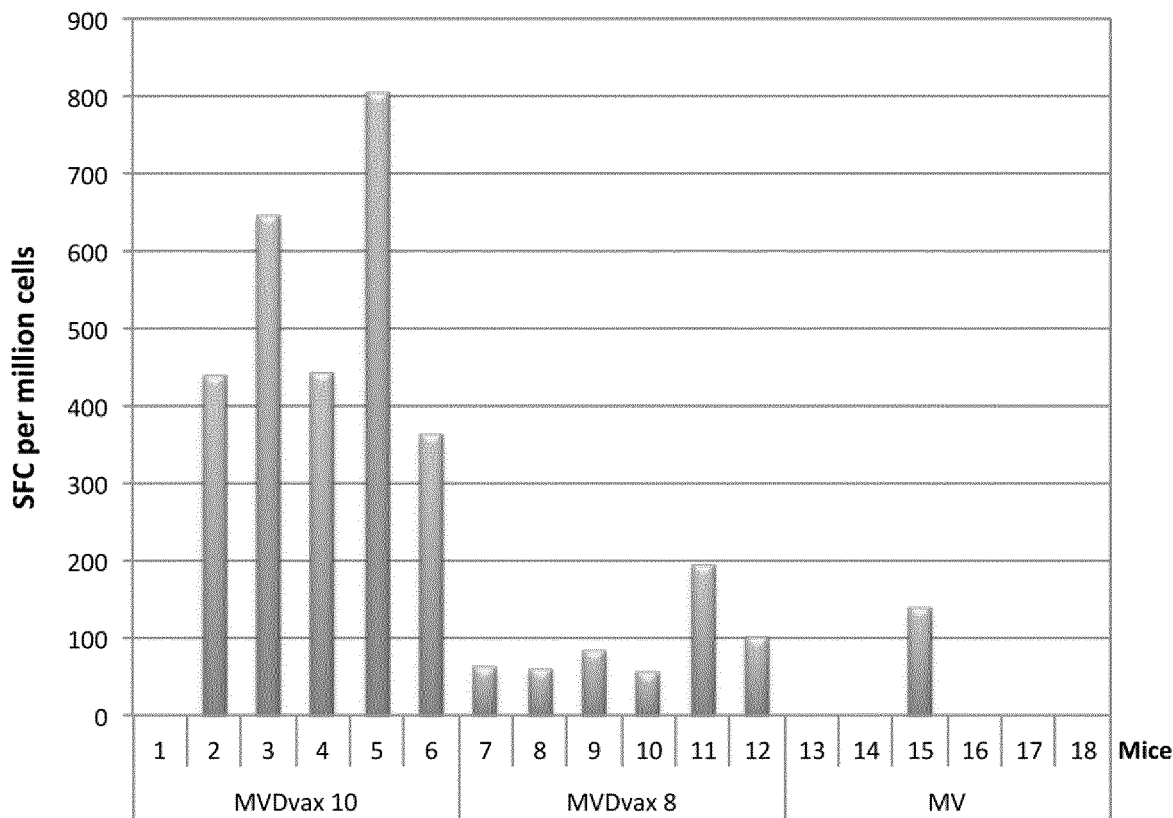


Figure 12

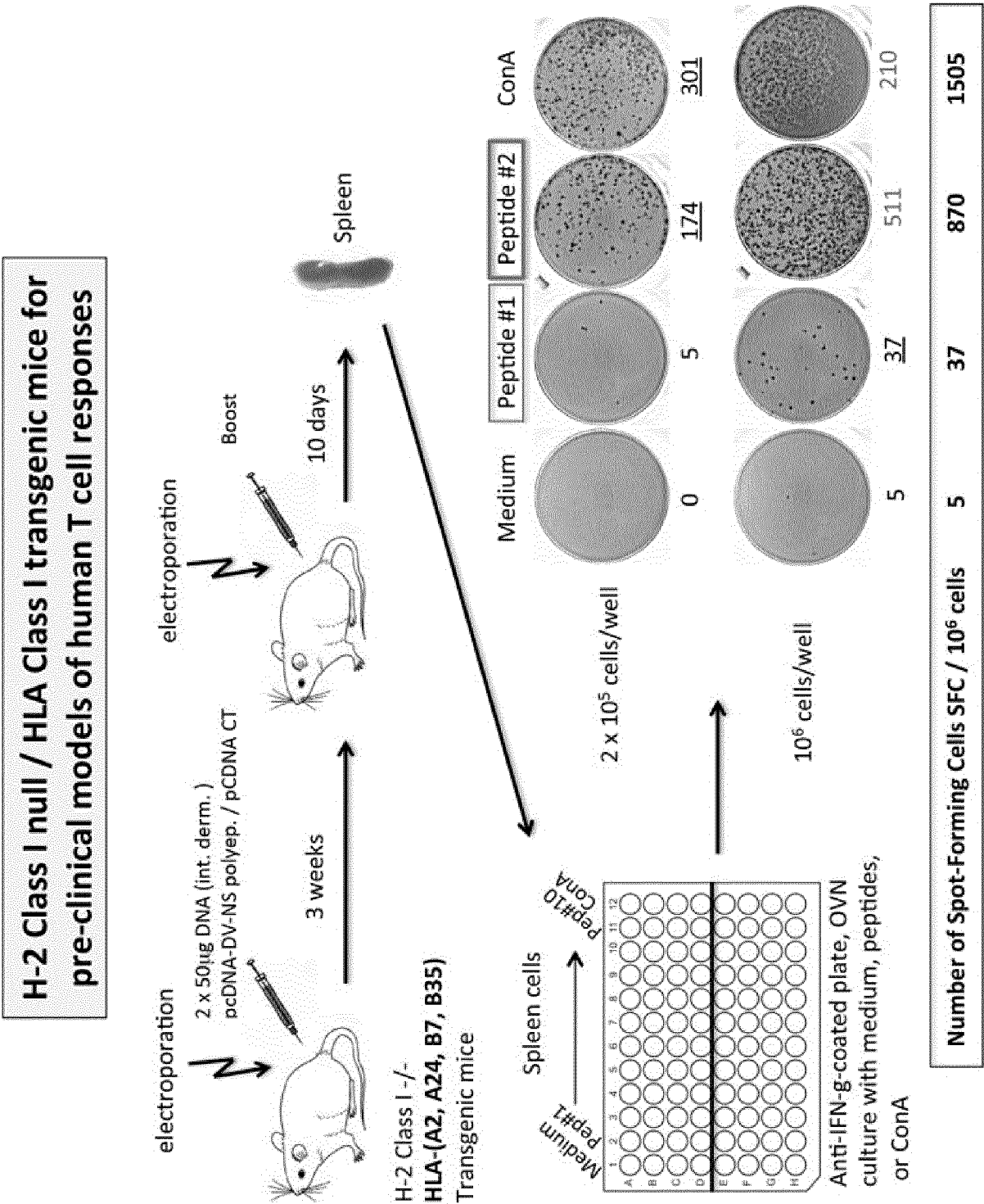


Figure 13

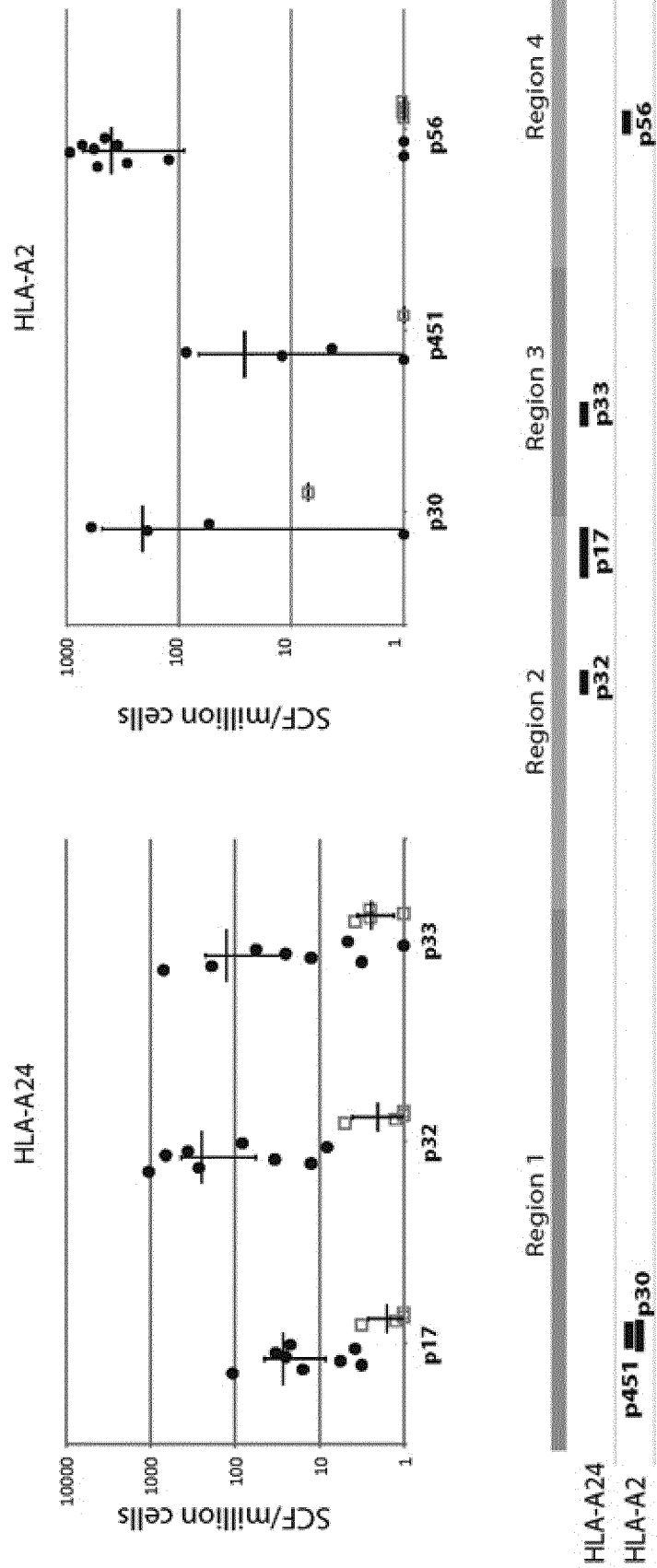


Figure 15A

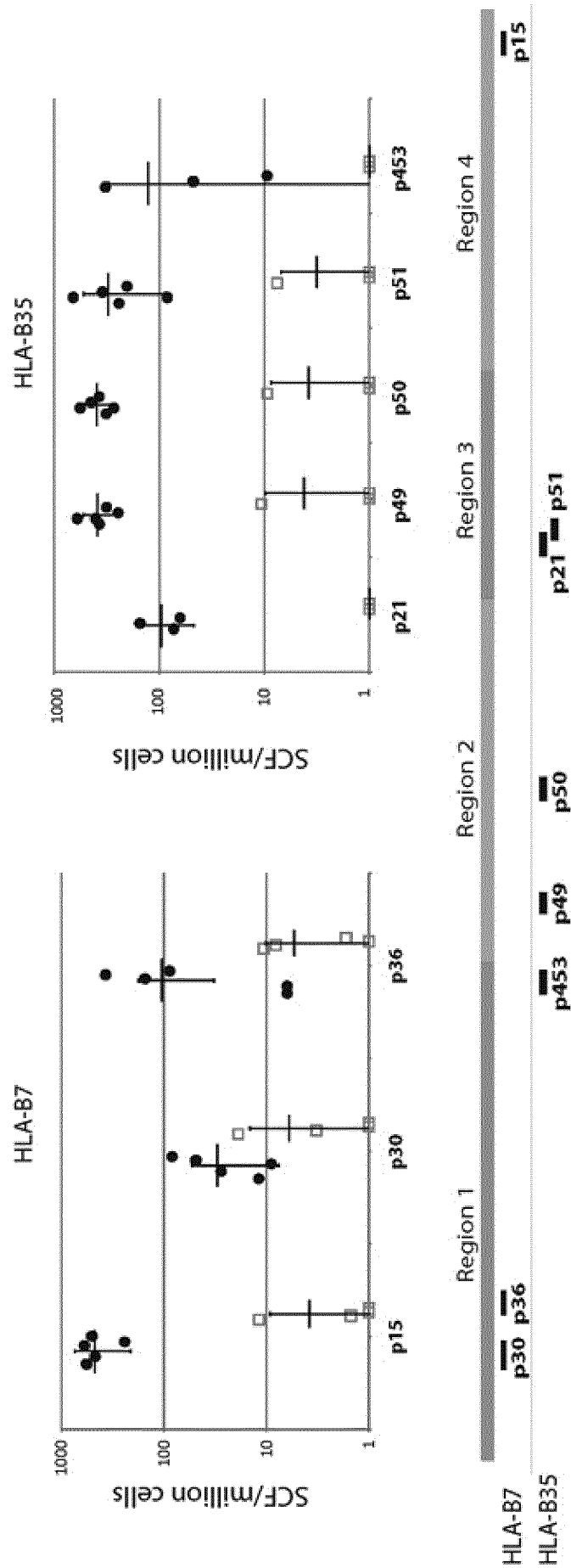


Figure 15B

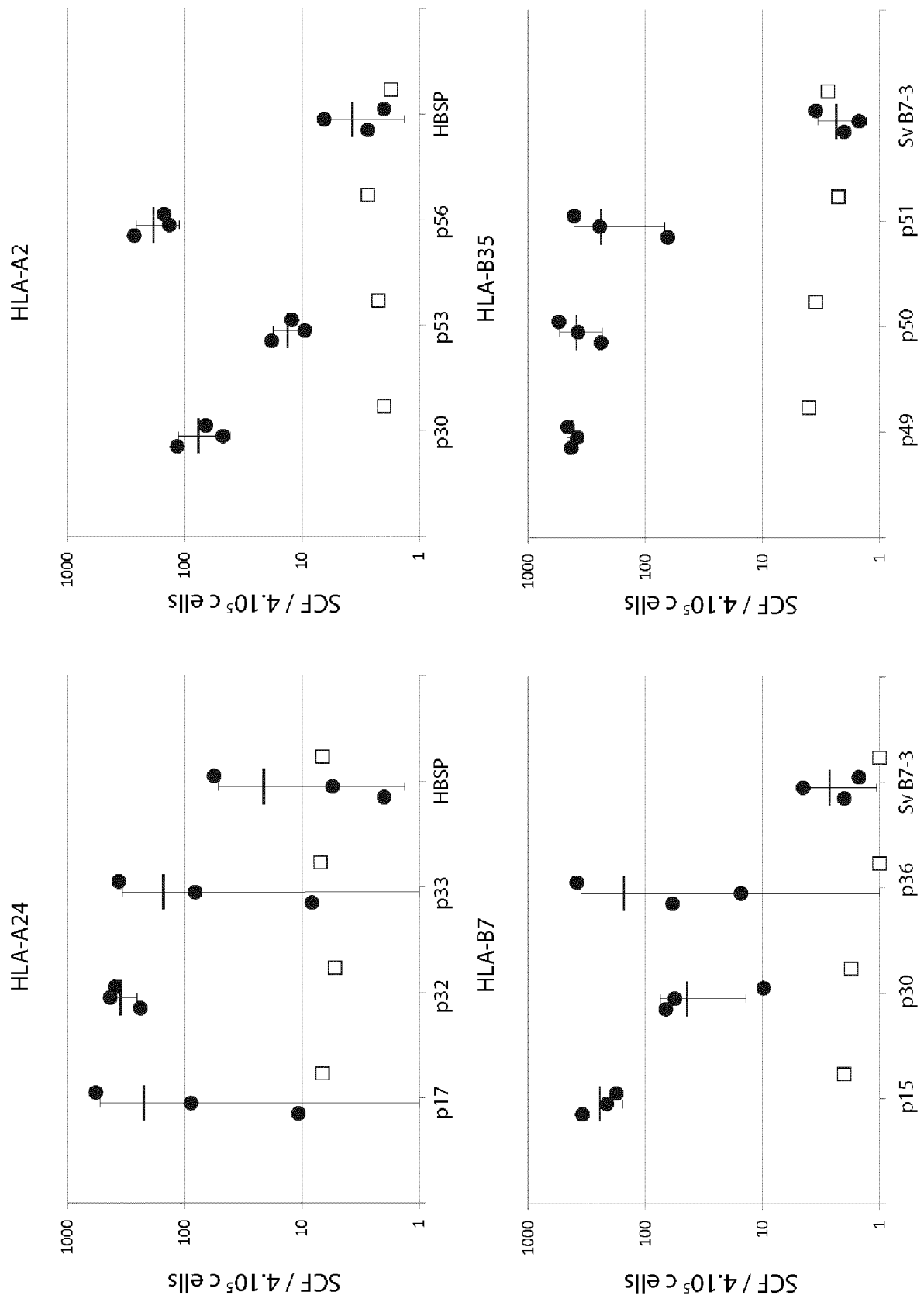


Figure 16A

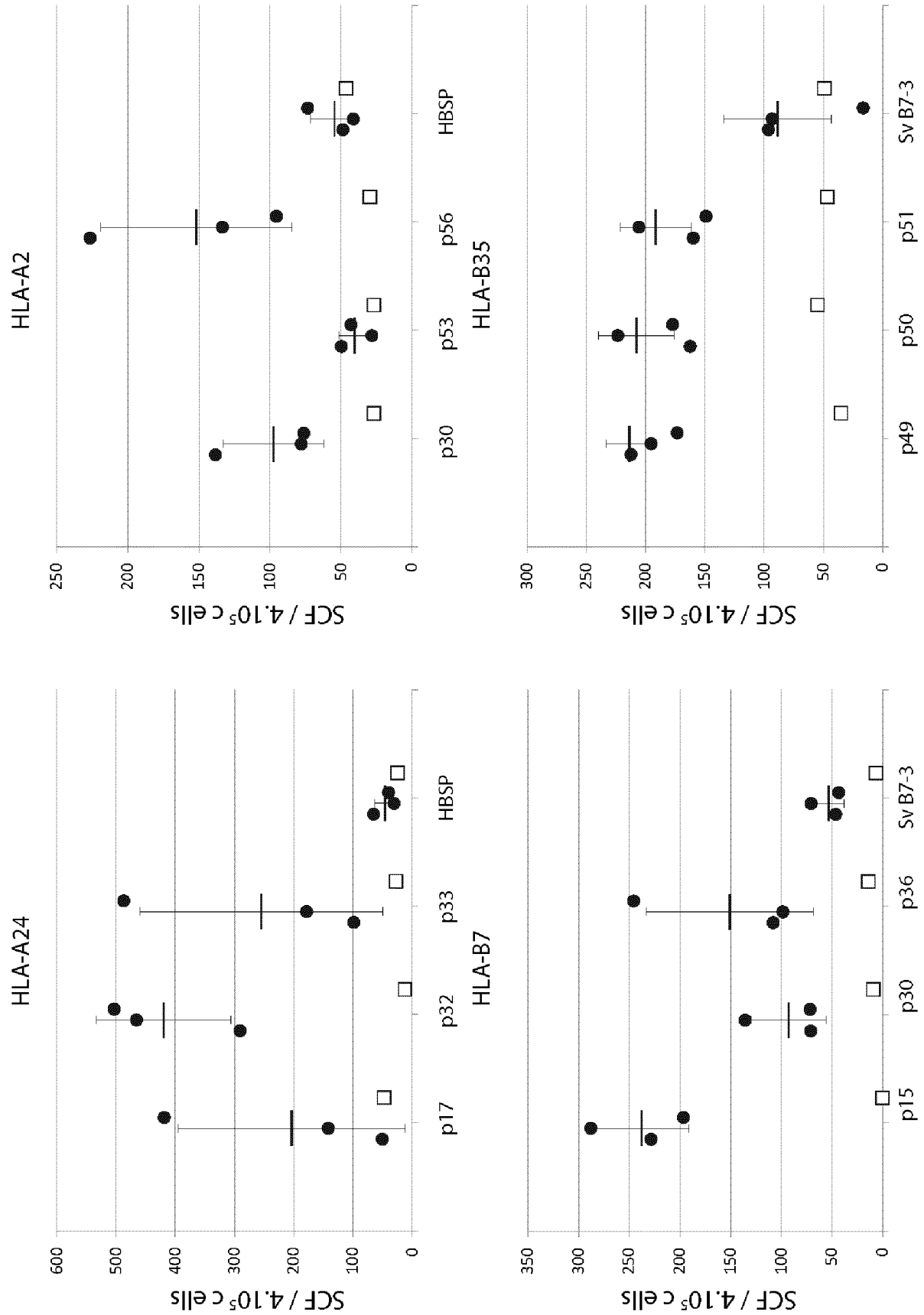
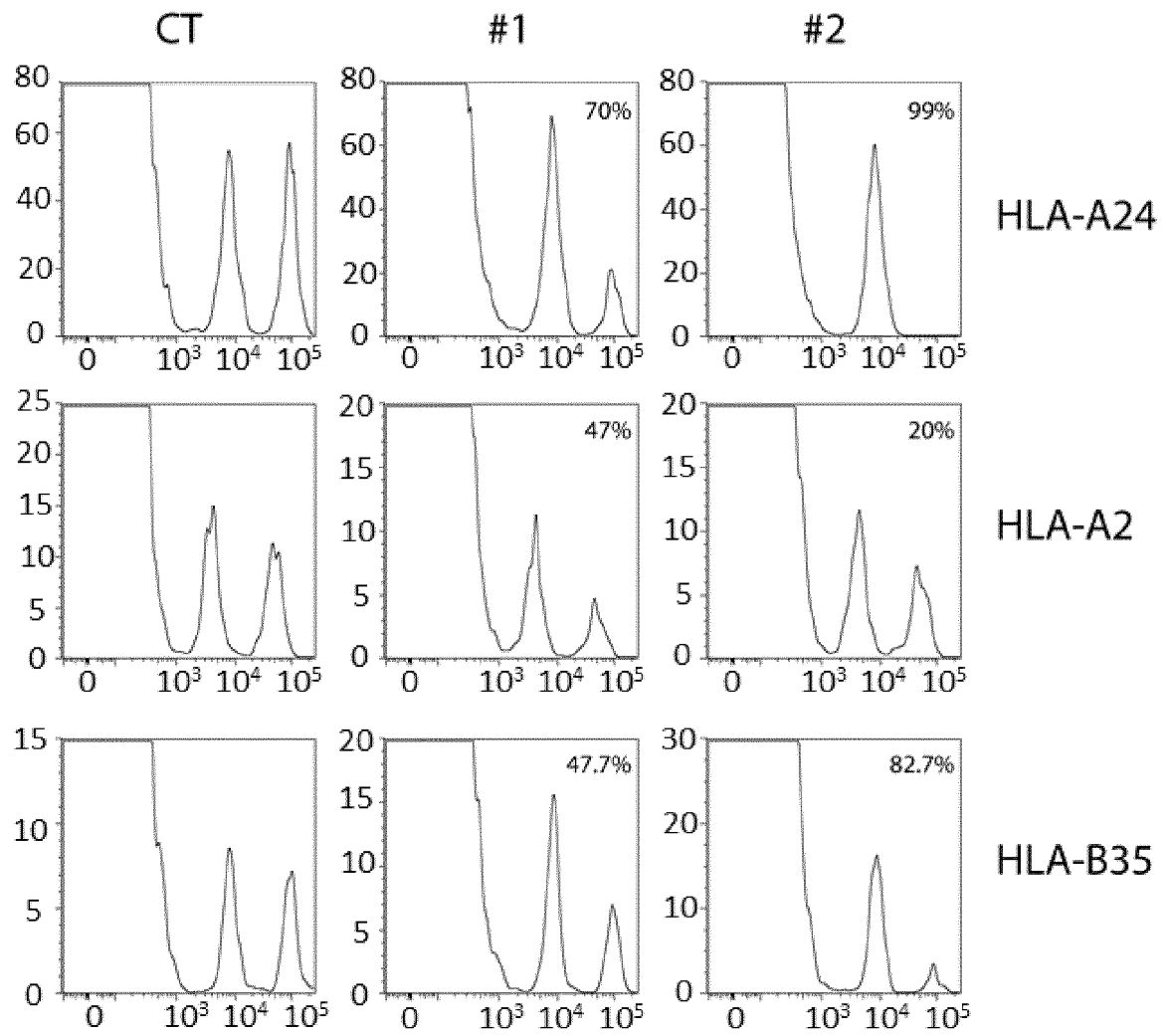


Figure 16B

**Figure 17**