FIGURE 5A

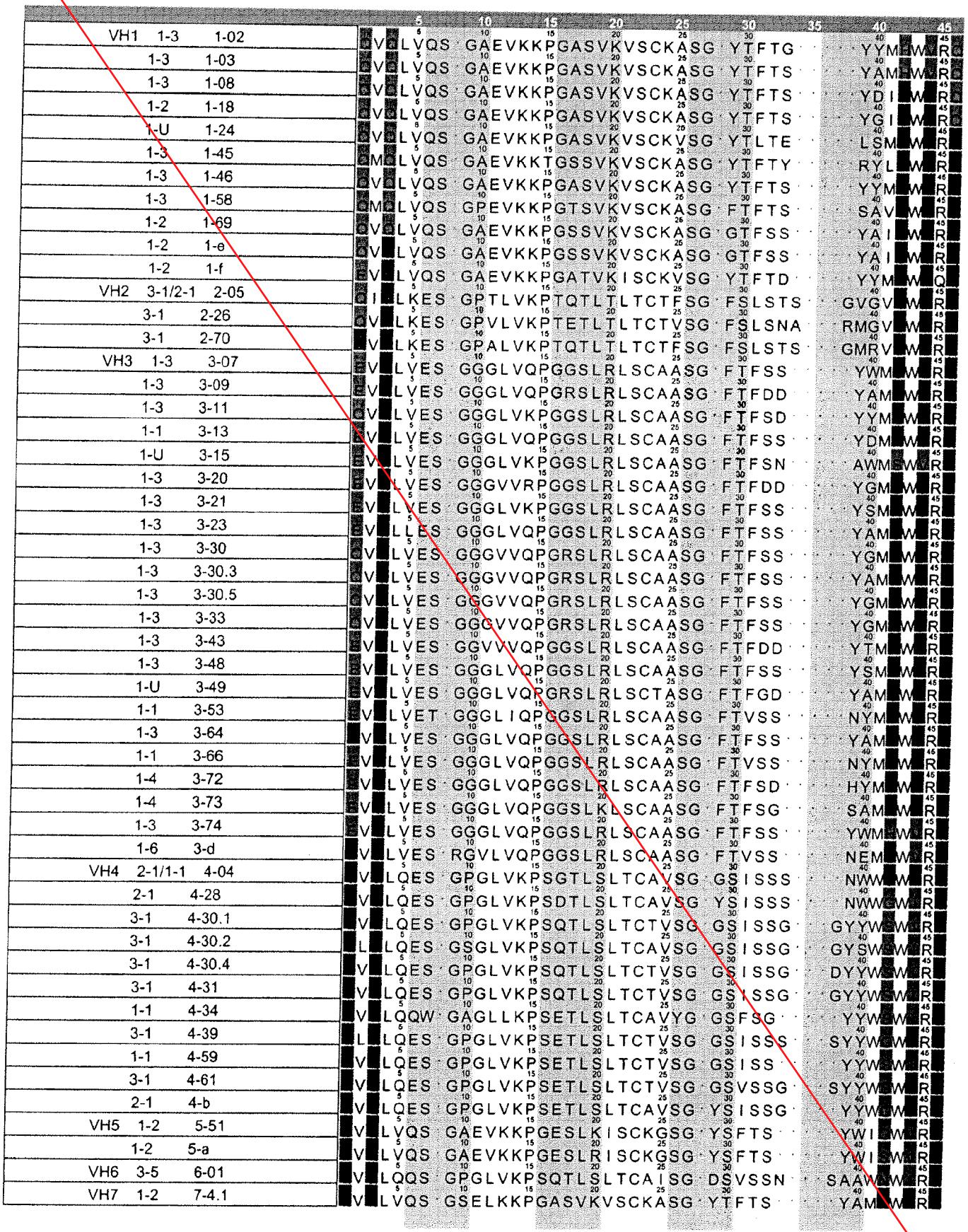
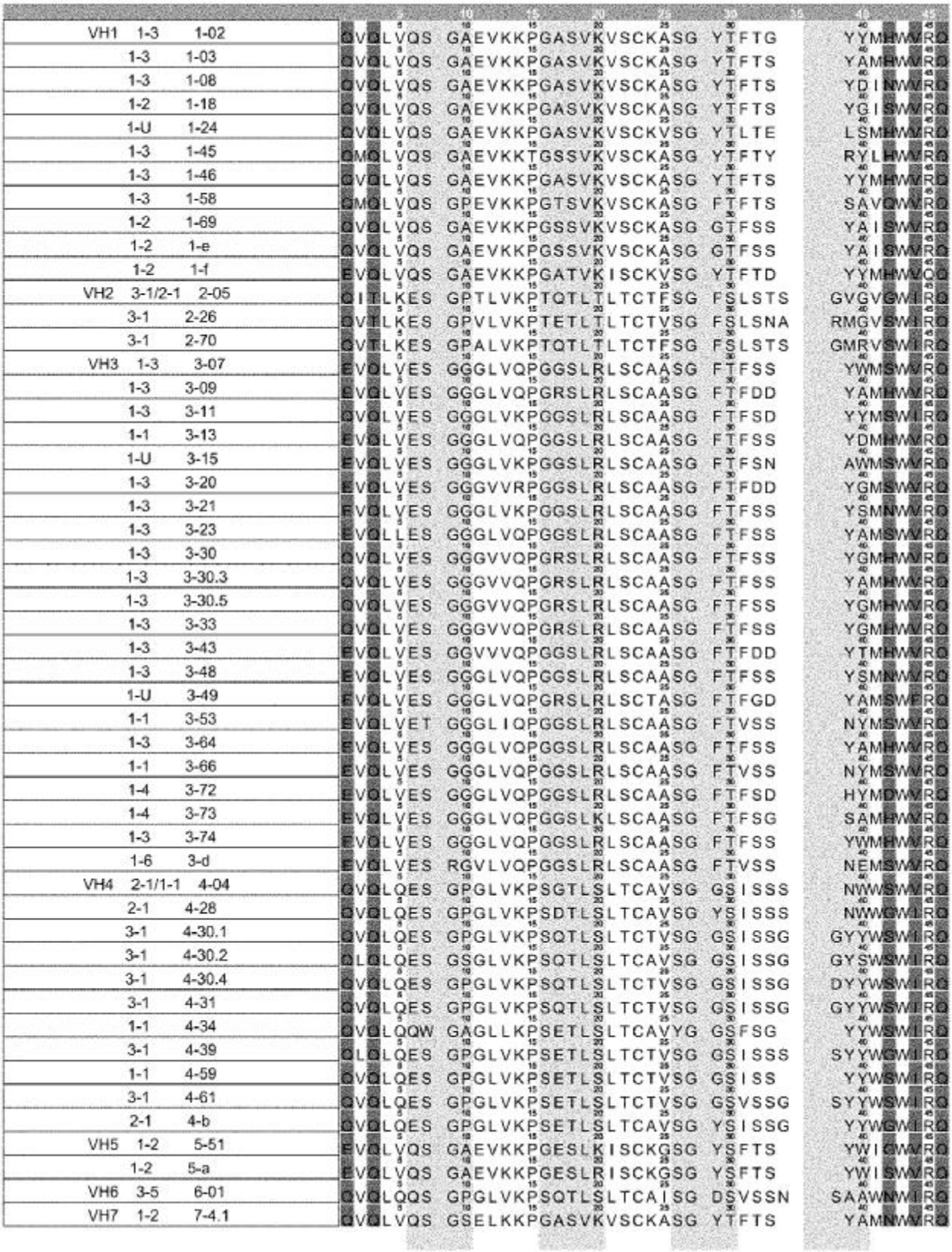

VH1 1-3 1-02
1-3 1-03
1-3 1-08
1-2 1-18
1-U 1-24
1-3 1-45
1-3 1-46
1-3 1-58
1-2 1-69
1-2 1-e
1-2 1-f
VH2 3-1/2-1 2-05
3-1 2-26
3-1 2-70
VH3 1-3 3-07
1-3 3-09
1-3 3-11
1-1 3-13
1-U 3-15
1-3 3-20
1-3 3-21
1-3 3-23
1-3 3-30
1-3 3-30.3
1-3 3-30.5
1-3 3-33
1-3 3-43
1-3 3-48
1-U 3-49
1-1 3-53
1-3 3-64
1-1 3-66
1-4 3-72
1-4 3-73
1-3 3-74
1-6 3-d
VH4 2-1/1-1 4-04
2-1 4-28
3-1 4-30.1
3-1 4-30.2
3-1 4-30.4
3-1 4-31
1-1 4-34
3-1 4-39
1-1 4-59
3-1 4-61
2-1 4-b
VH5 1-2 5-51
1-2 5-a
VH6 3-5 6-01
VH7 1-2 7-4.1

Figure 5A


VH1 1-3 1-02
1-3 1-03
1-3 1-08
1-2 1-18
1-U 1-24
1-3 1-45
1-3 1-46
1-3 1-58
1-2 1-69
1-2 1-e
1-2 1-f
VH2 3-1/2-1 2-05
3-1 2-26
3-1 2-70
VH3 1-3 3-07
1-3 3-09
1-3 3-11
1-1 3-13
1-U 3-15
1-3 3-20
1-3 3-21
1-3 3-23
1-3 3-30
1-3 3-30.3
1-3 3-30.5
1-3 3-33
1-3 3-43
1-3 3-48
1-U 3-49
1-1 3-53
1-3 3-64
1-1 3-66
1-4 3-72
1-4 3-73
1-3 3-74
1-6 3-d
VH4 2-1/1-1 4-04
2-1 4-28
3-1 4-30.1
3-1 4-30.2
3-1 4-30.4
3-1 4-31
1-1 4-34
3-1 4-39
1-1 4-59
3-1 4-61
2-1 4-b
VH5 1-2 5-51
1-2 5-a
VH6 3-5 6-01
VH7 1-2 7-4.1

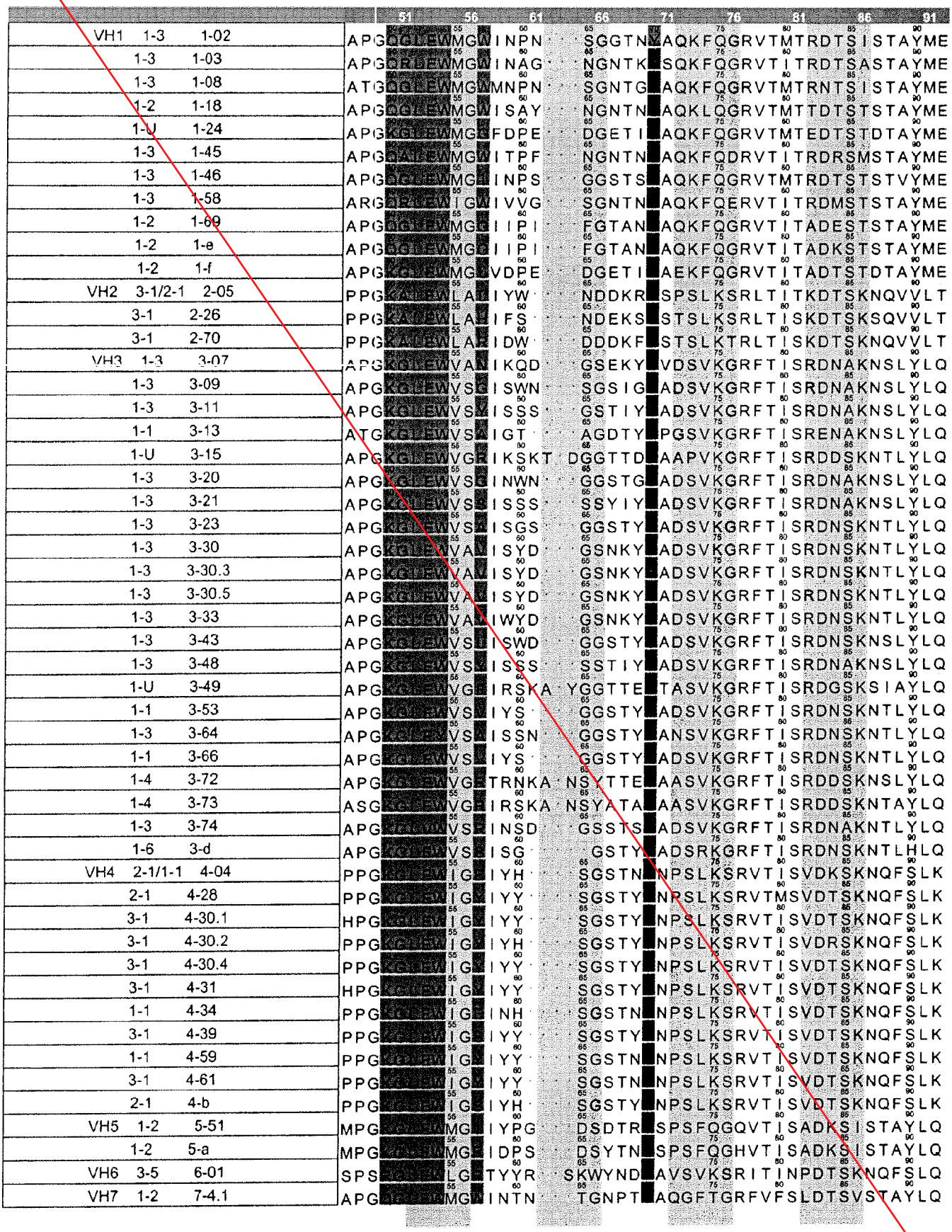
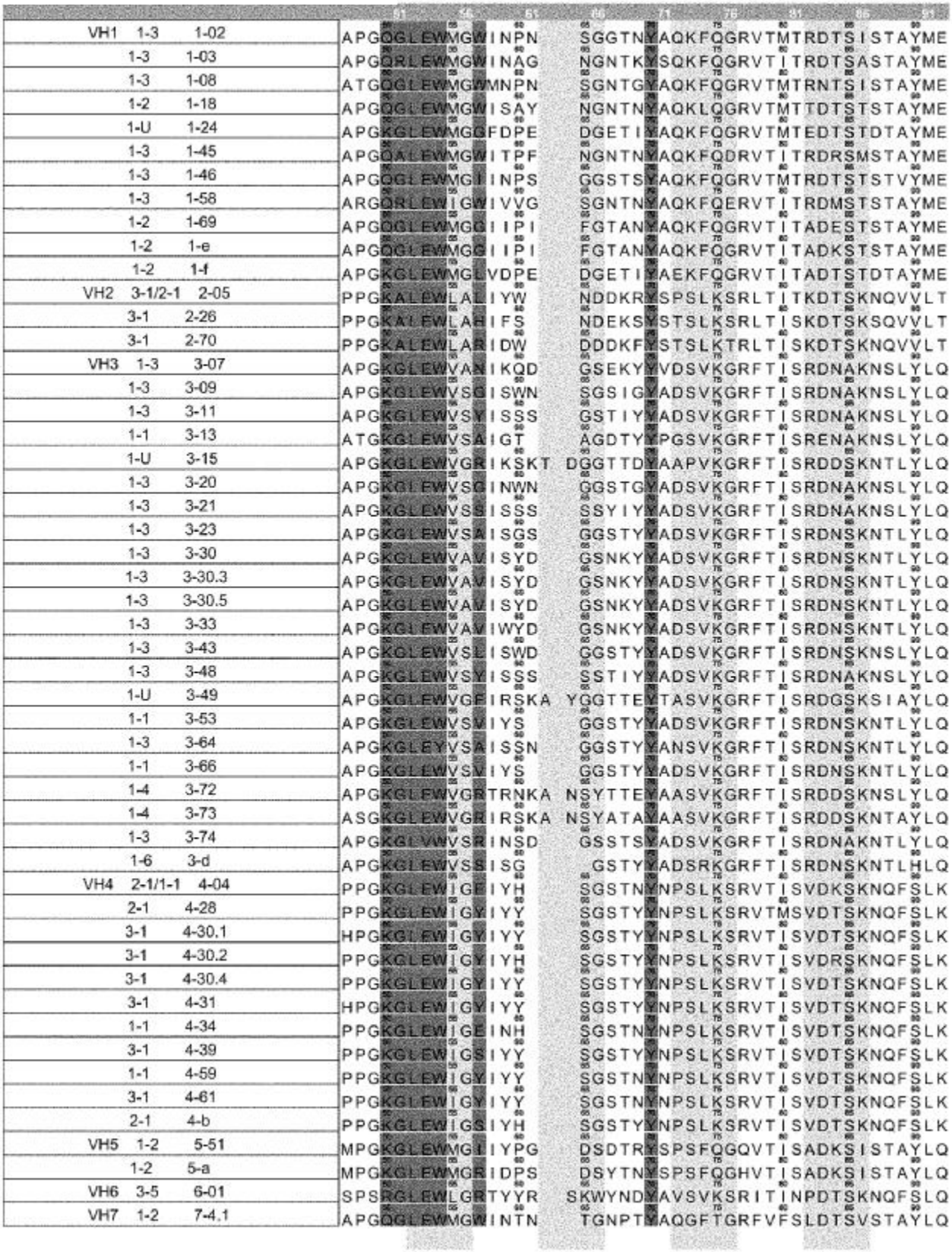

VH1 1-3 1-02
1-3 1-03
1-3 1-08
1-2 1-18
1-U 1-24
1-3 1-45
1-3 1-46
1-3 1-58
1-2 1-69
1-2 1-e
1-2 1-f
VH2 3-1/2-1 2-05
3-1 2-26
3-1 2-70
VH3 1-3 3-07
1-3 3-09
1-3 3-11
1-1 3-13
1-U 3-15
1-3 3-20
1-3 3-21
1-3 3-23
1-3 3-30
1-3 3-30.3
1-3 3-30.5
1-3 3-33
1-3 3-43
1-3 3-48
1-U 3-49
1-1 3-53
1-3 3-64
1-1 3-66
1-4 3-72
1-4 3-73
1-3 3-74
1-6 3-d
VH4 2-1/1-1 4-04
2-1 4-28
3-1 4-30.1
3-1 4-30.2
3-1 4-30.4
3-1 4-31
1-1 4-34
3-1 4-39
1-1 4-59
3-1 4-61
2-1 4-b
VH5 1-2 5-51
1-2 5-a
VH6 3-5 6-01
VH7 1-2 7-4.1

Figure 5A continued on 8/23



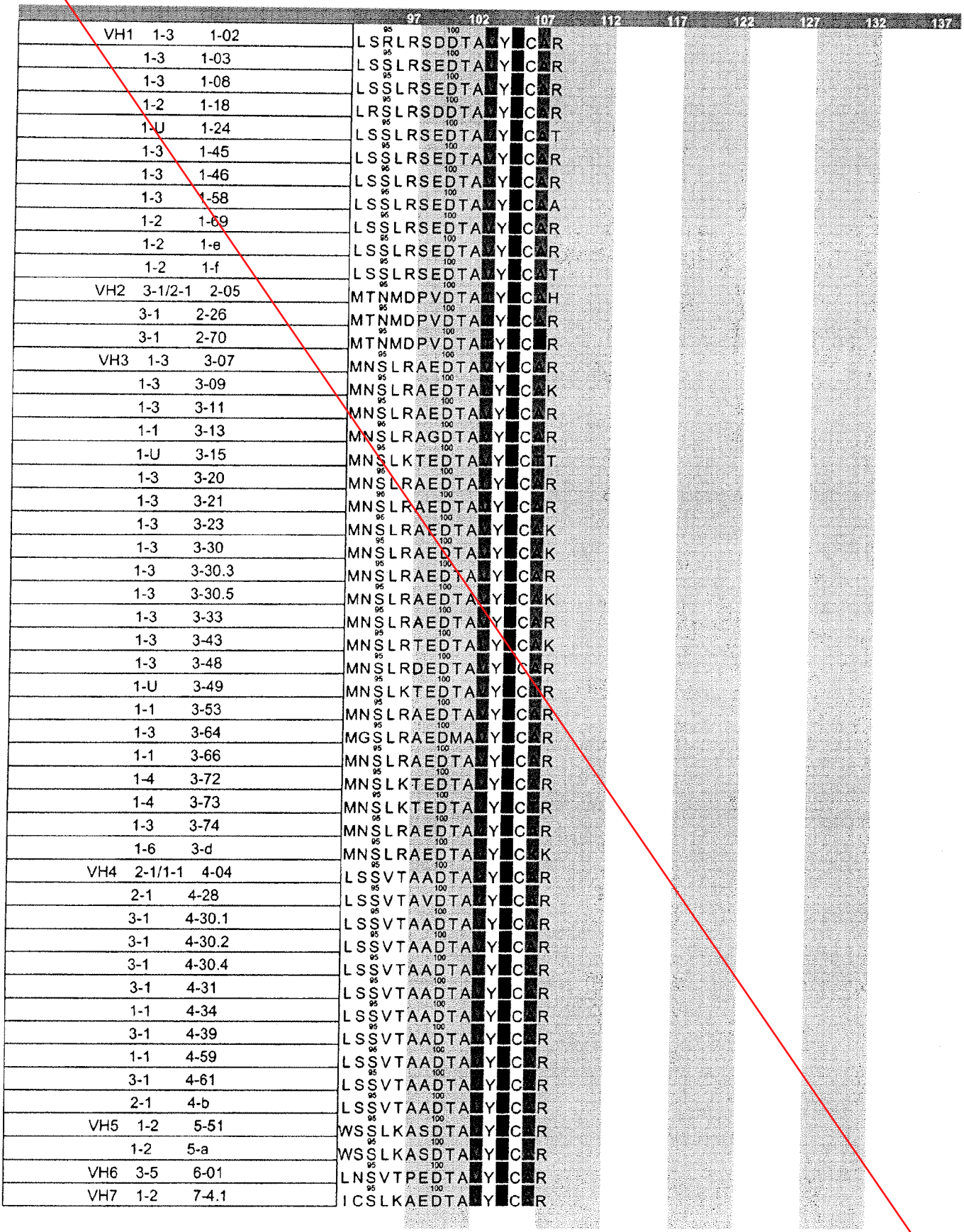

97
102
107
112
117
122
127
132
137
VH1 1-3 1-02
1-3 1-03
1-3 1-08
1-2 1-18
1-U 1-24
1-3 1-45
1-3 1-46
1-3 1-58
1-2 1-69
1-2 1-e
1-2 1-f
VH2 3-1/2-1 2-05
3-1 2-26
3-1 2-70
VH3 1-3 3-07
1-3 3-09
1-3 3-11
1-1 3-13
1-U 3-15
1-3 3-20
1-3 3-21
1-3 3-23
1-3 3-30
1-3 3-30.3
1-3 3-30.5
1-3 3-33
1-3 3-43
1-3 3-48
1-U 3-49
1-1 3-53
1-3 3-64
1-1 3-66
1-4 3-72
1-4 3-73
1-3 3-74
1-6 3-d
VH4 2-1/1-1 4-04
2-1 4-28
3-1 4-30.1
3-1 4-30.2
3-1 4-30.4
3-1 4-31
1-1 4-34
3-1 4-39
1-1 4-59
3-1 4-61
2-1 4-b
VH5 1-2 5-51
1-2 5-a
VH6 3-5 6-01
VH7 1-2 7-4.1

Figure 5A continued on 9/23

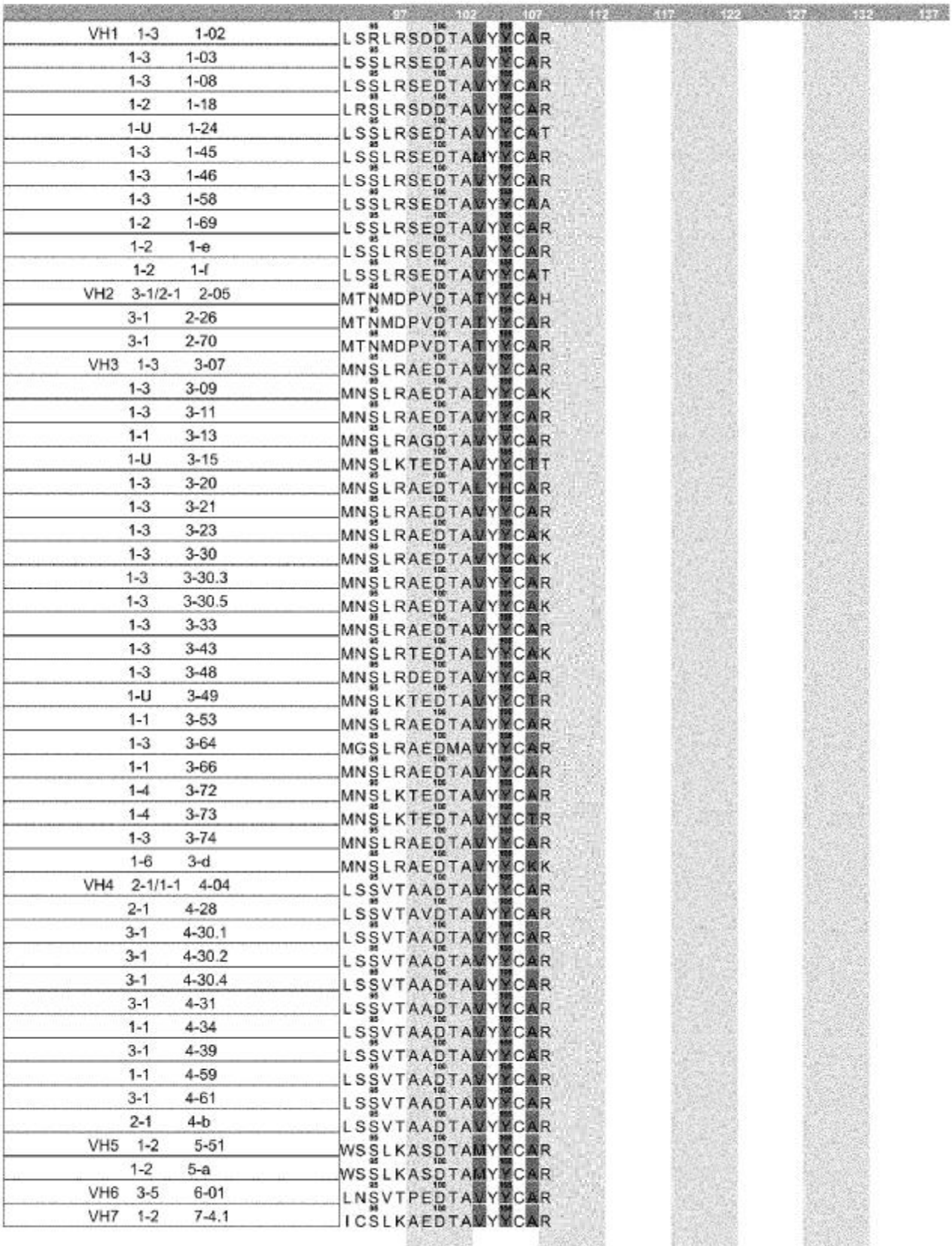


FIGURE 5B

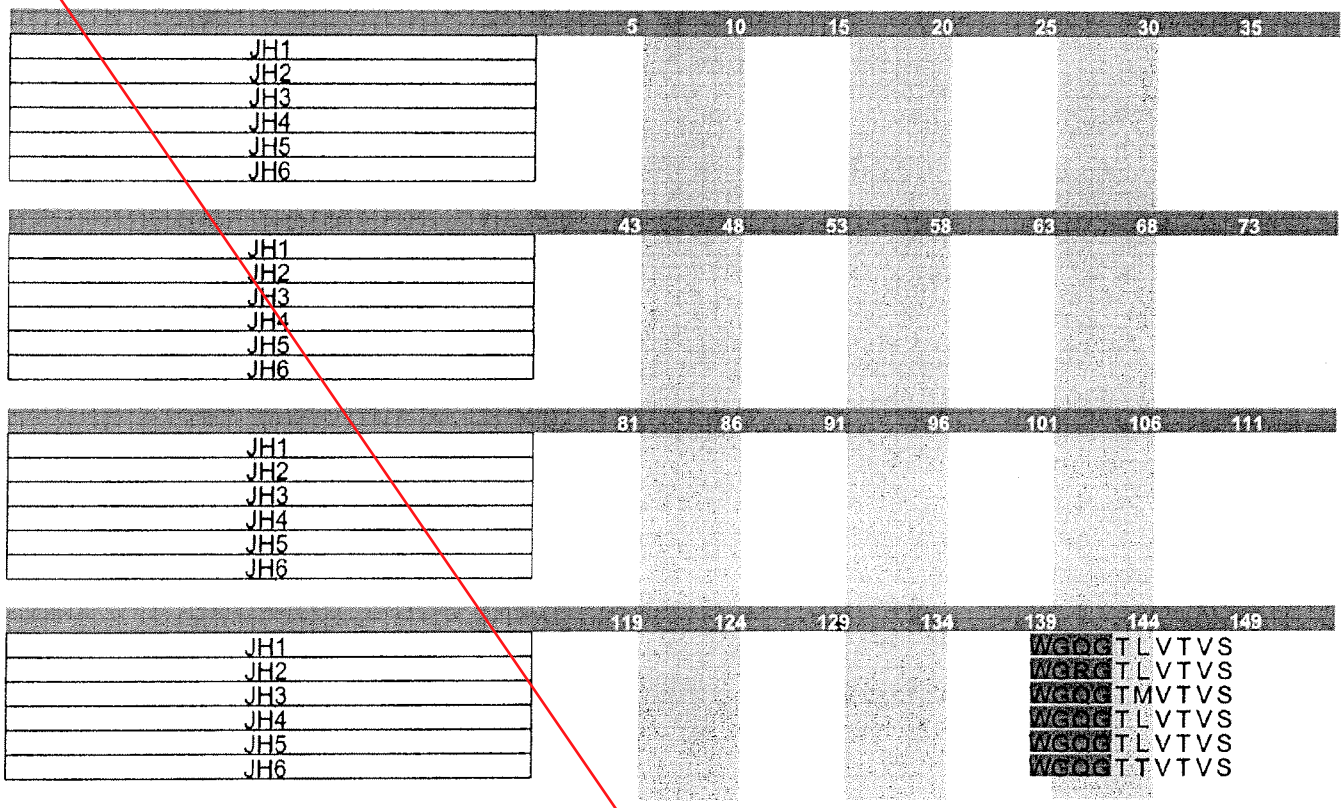
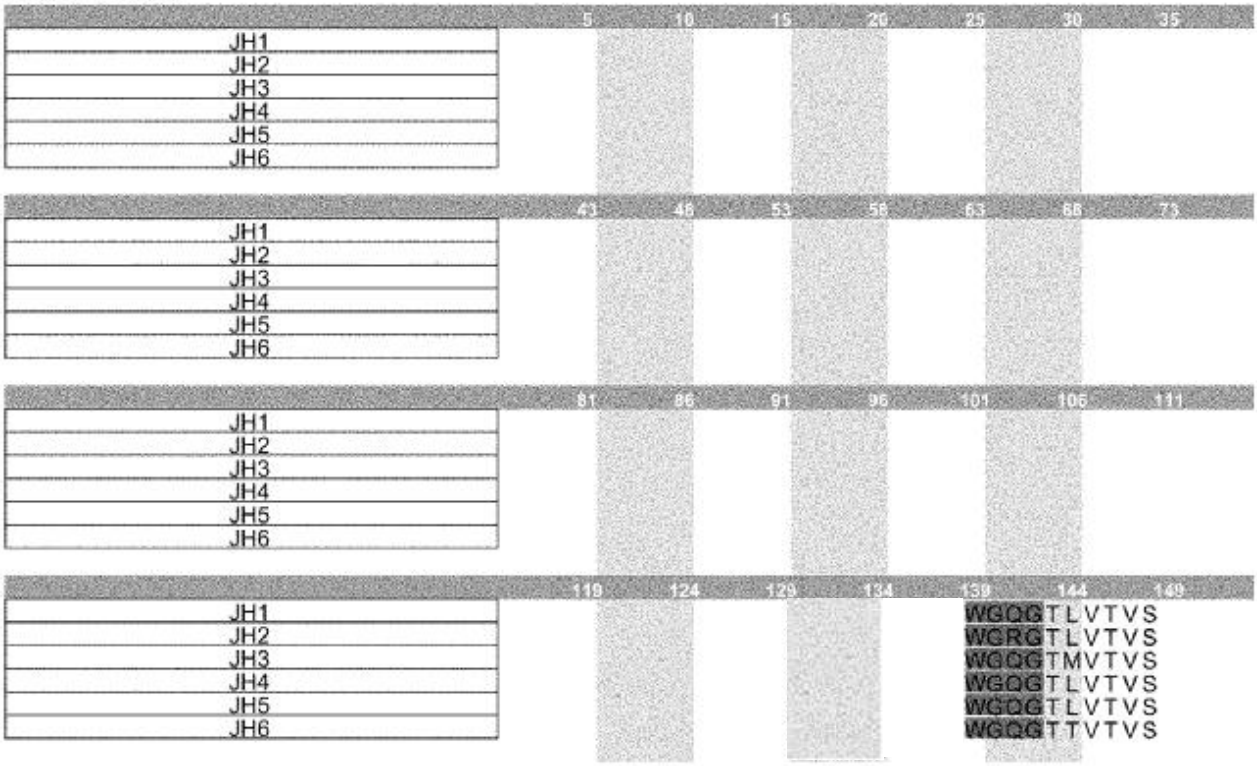

5 10 15 20 25 30 35
JH1
JH2
JH3
JH4
JH5
JH6
43 48 53 58 63 68 73
JH1
JH2
JH3
JH4
JH5
JH6
81 86 91 96 101 106 111
JH1
JH2
JH3
JH4
JH5
JH6
119 124 129 134 139 144 149
JH1 WGQGTLVTVS
JH2 WGRGTLVTVS
JH3 WGQGTMVTVS
JH4 WGQGTLVTVS
JH5 WGQGTLVTVS
JH6 WGQGTTVTVS

Figure 5B


5 10 15 20 25 30 35
JH1
JH2
JH3
JH4
JH5
JH6
41 46 53 58 63 68 73
JH1
JH2
JH3
JH4
JH5
JH6
81 86 91 96 101 106 111
JH1
JH2
JH3
JH4
JH5
JH6
119 124 129 134 139 144 149
JH1 WGQGTLVTVS
JH2 WGRGTLVTVS
JH3 WGQGTMVTVS
JH4 WGQGTLVTVS
JH5 WGQGTLVTVS
JH6 WGQGTTVTVS

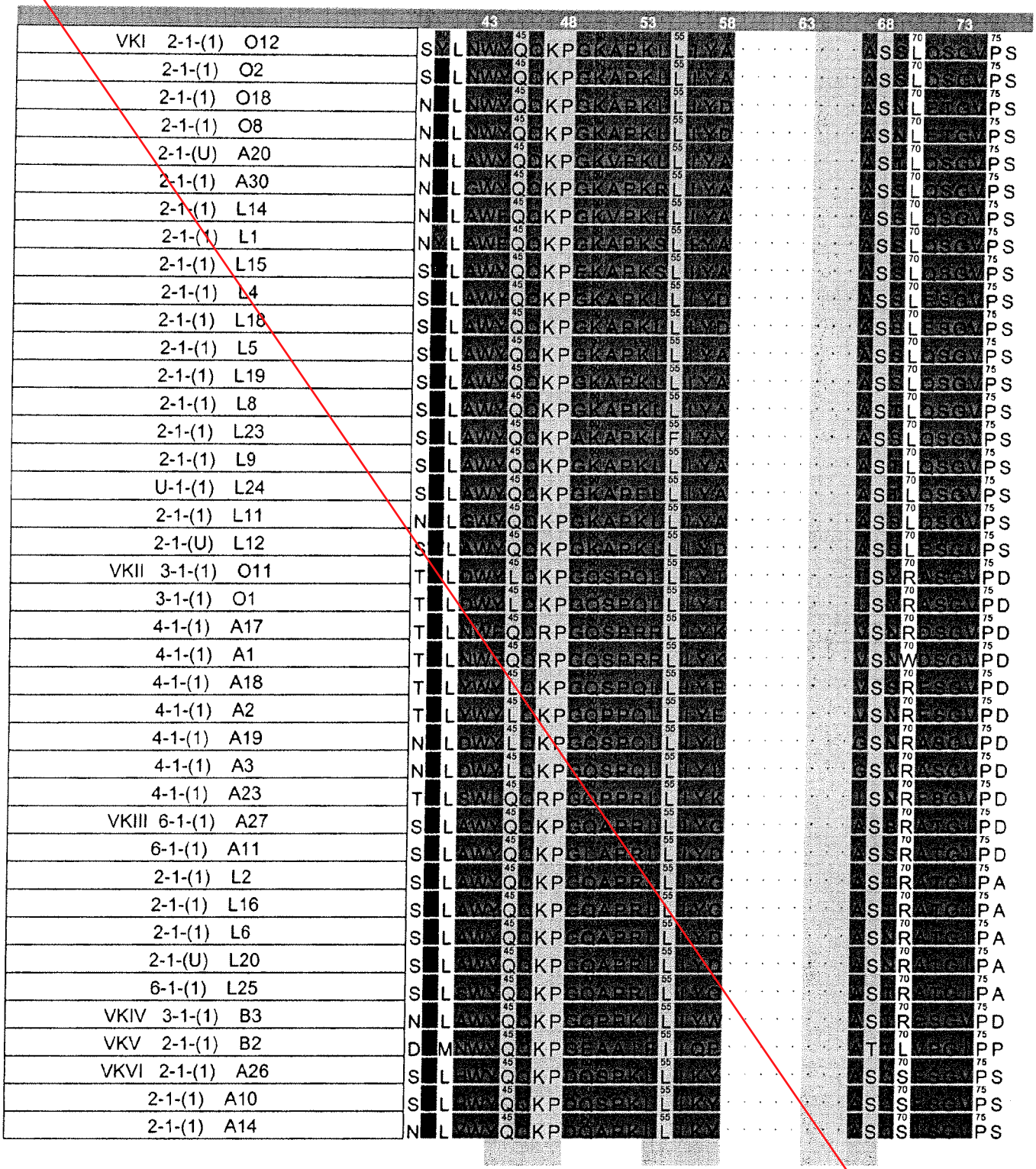
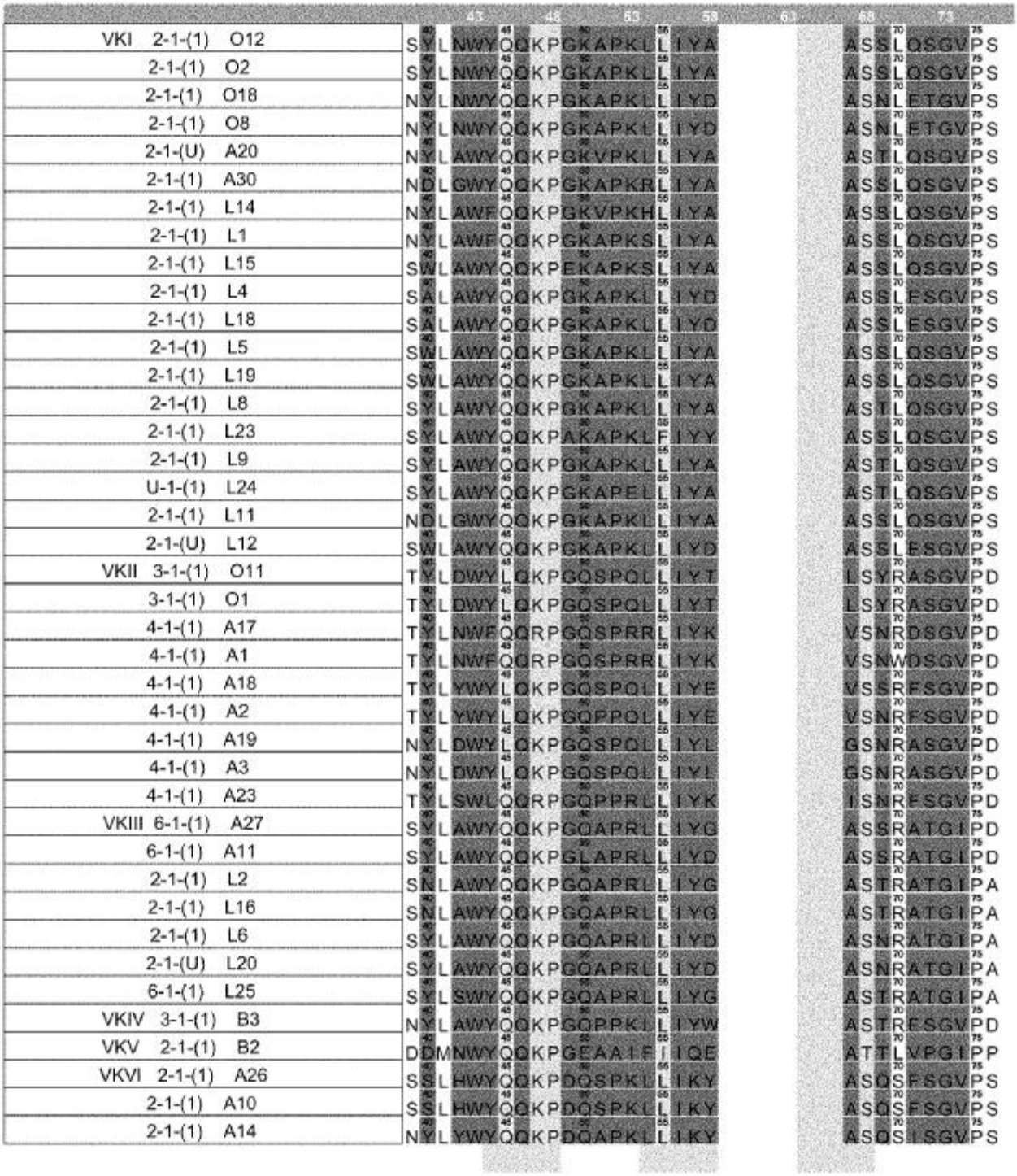

VKI 2-1-(1) O12
2-1-(1) O2
2-1-(1) O18
2-1-(1) O8
2-1-(U) A20
2-1-(1) A30
2-1-(1) L14
2-1-(1) L1
2-1-(1) L15
2-1-(1) L4
2-1-(1) L18
2-1-(1) L5
2-1-(1) L19
2-1-(1) L8
2-1-(1) L23
2-1-(1) L9
U-1-(1) L24
2-1-(1) L11
2-1-(U) L12
VKII 3-1-(1) O11
3-1-(1) O1
4-1-(1) A17
4-1-(1) A1
4-1-(1) A18
4-1-(1) A2
4-1-(1) A19
4-1-(1) A3
4-1-(1) A23
VKIII 6-1-(1) A27
6-1-(1) A11
2-1-(1) L2
2-1-(1) L16
2-1-(1) L6
2-1-(U) L20
6-1-(1) L25
VKIV 3-1-(1) B3
VKV 2-1-(1) B2
VKVI 2-1-(1) A26
2-1-(1) A10
2-1-(1) A14
43
48
53
58
63
68
73

Figure 6A continued on 12/23



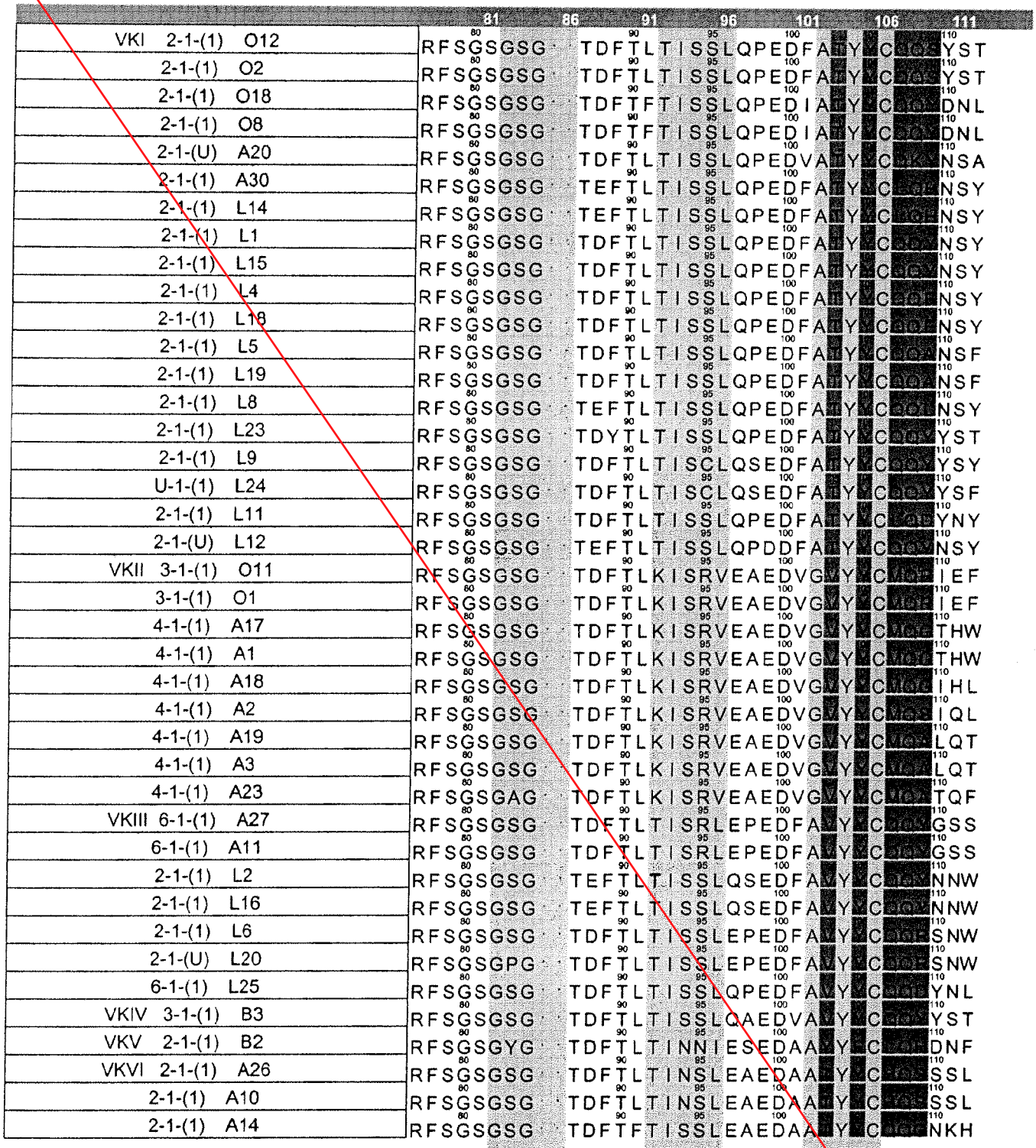

81 86 91 96 101 106 111
VKI 2-1-(1) O12
2-1-(1) O2
2-1-(1) O18
2-1-(1) O8
2-1-(U) A20
2-1-(1) A30
2-1-(1) L14
2-1-(1) L1
2-1-(1) L15
2-1-(1) L4
2-1-(1) L18
2-1-(1) L5
2-1-(1) L19
2-1-(1) L8
2-1-(1) L23
2-1-(1) L9
U-1-(1) L24
2-1-(1) L11
2-1-(U) L12
VKII 3-1-(1) O11
3-1-(1) O1
4-1-(1) A17
4-1-(1) A1
4-1-(1) A18
4-1-(1) A2
4-1-(1) A19
4-1-(1) A3
4-1-(1) A23
VKIII 6-1-(1) A27
6-1-(1) A11
2-1-(1) L2
2-1-(1) L16
2-1-(1) L6
2-1-(U) L20
6-1-(1) L25
VKIV 3-1-(1) B3
VKV 2-1-(1) B2
VKVI 2-1-(1) A26
2-1-(1) A10
2-1-(1) A14

Figure 6A continued on 13/23

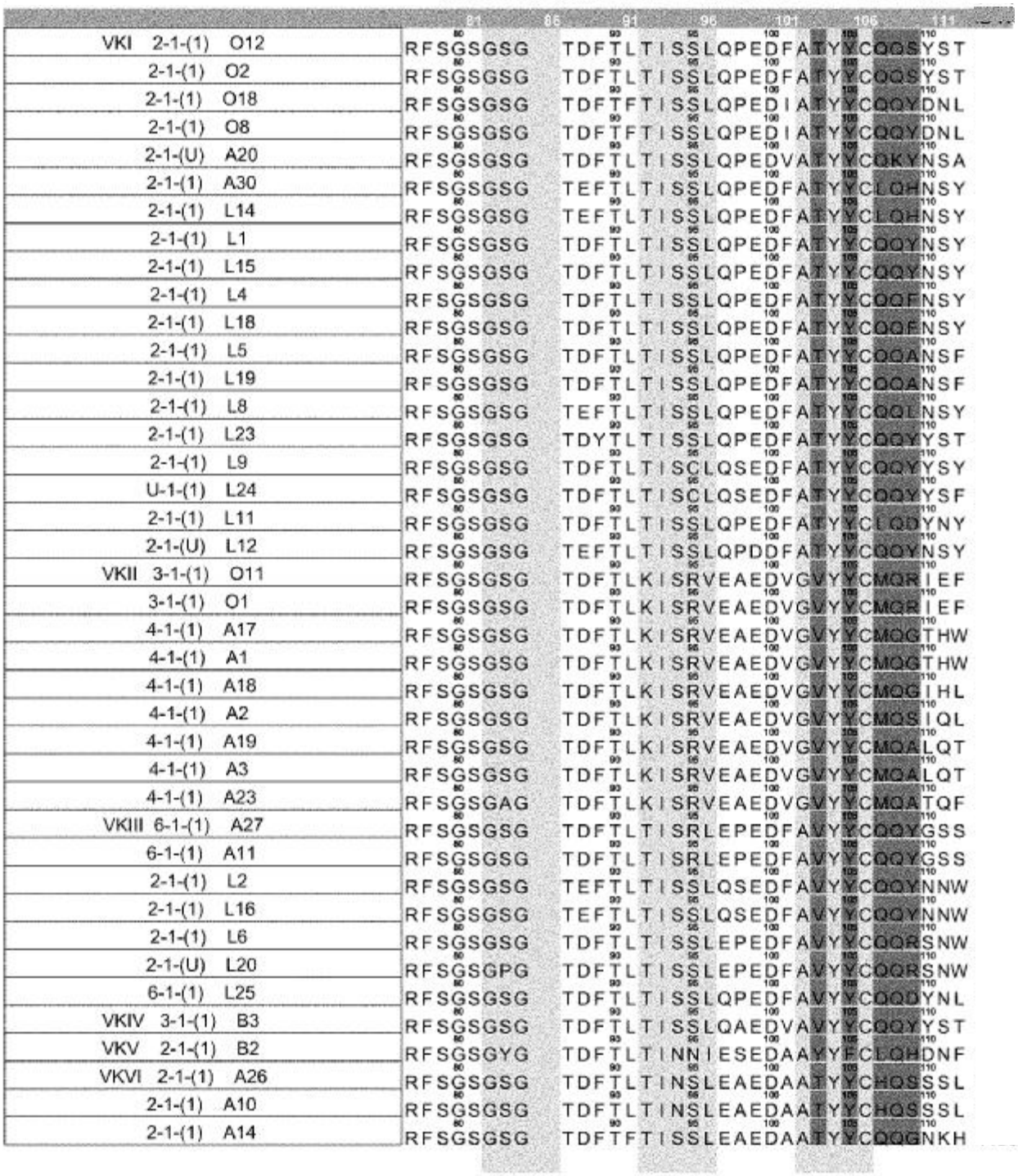


FIGURE 6B

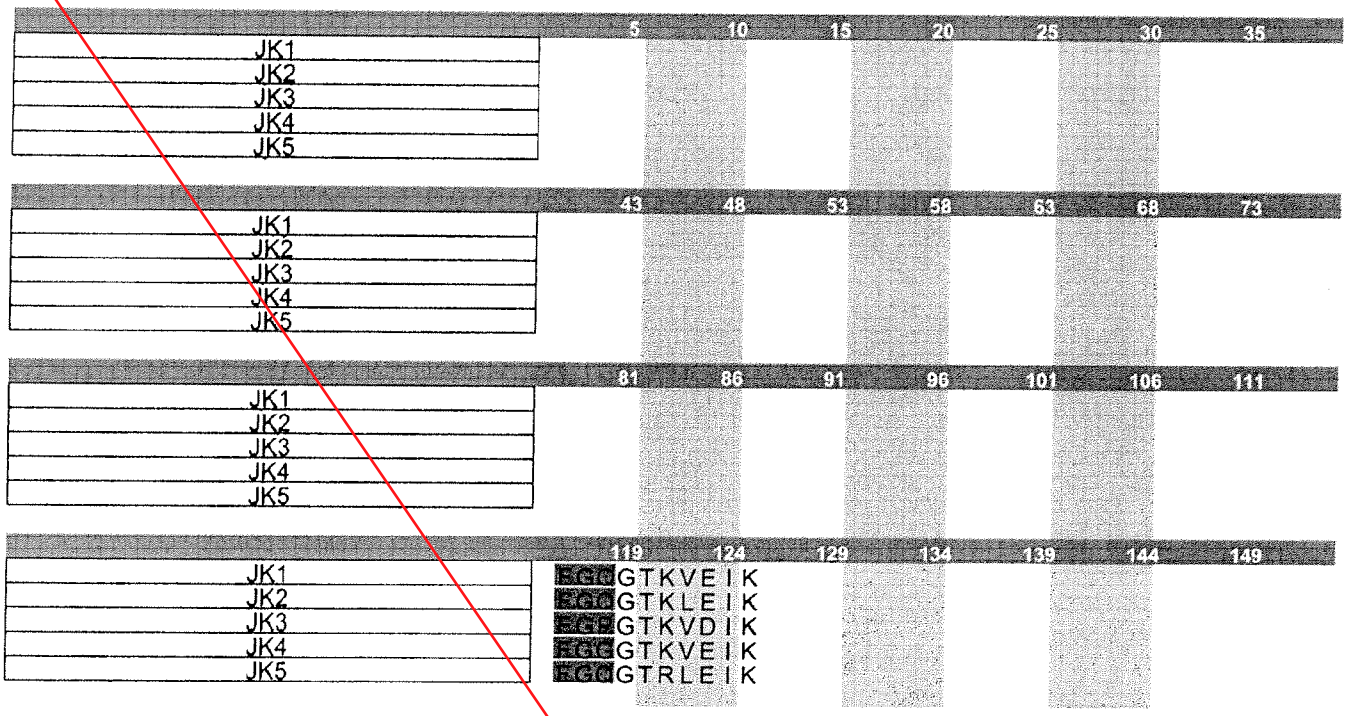
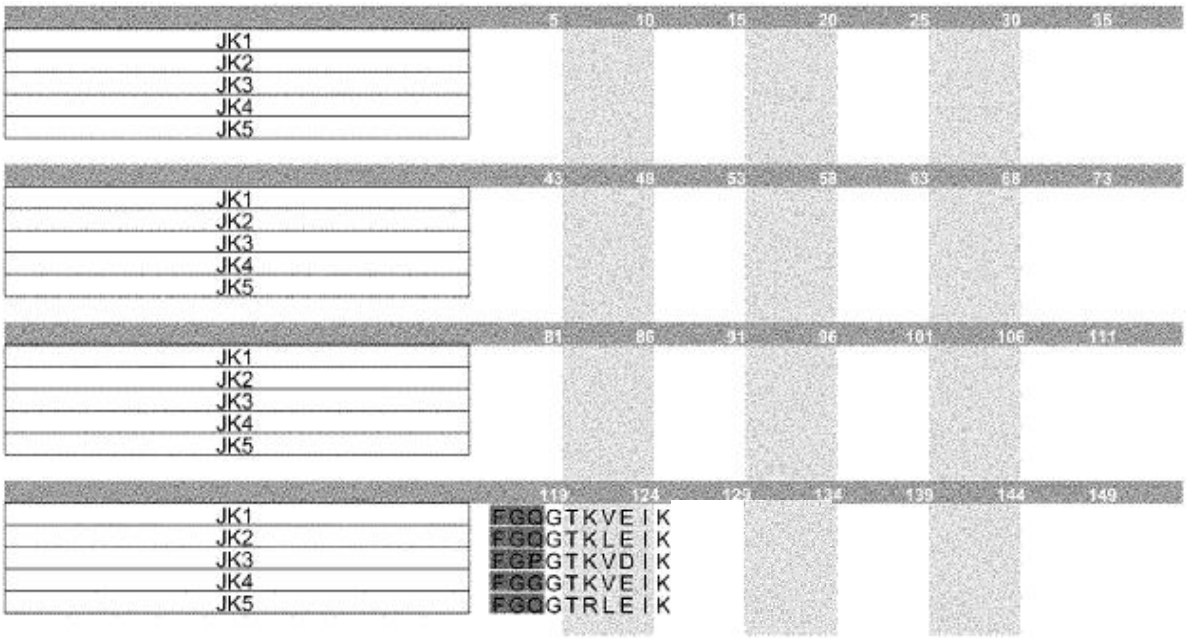

5 10 15 20 25 30 35
JK1
JK2
JK3
JK4
JK5
43 48 53 58 63 68 73
JK1
JK2
JK3
JK4
JK5
81 86 91 96 101 106 111
JK1
JK2
JK3
JK4
JK5
119 124 129 134 139 144 149
JK1 FGQGTKVEIK
JK2 FGQGTKLEIK
JK3 FGPGTKVDIK
JK4 FGQGTKVEIK
JK5 FGQGTRLEIK

Figure 6B


JK1
JK2
JK3
JK4
JK5
FGQGTKVEIK
FGQGTKLEIK
FGPGTKVDIK
FGGGTKVEIK
FGQGTRLEIK

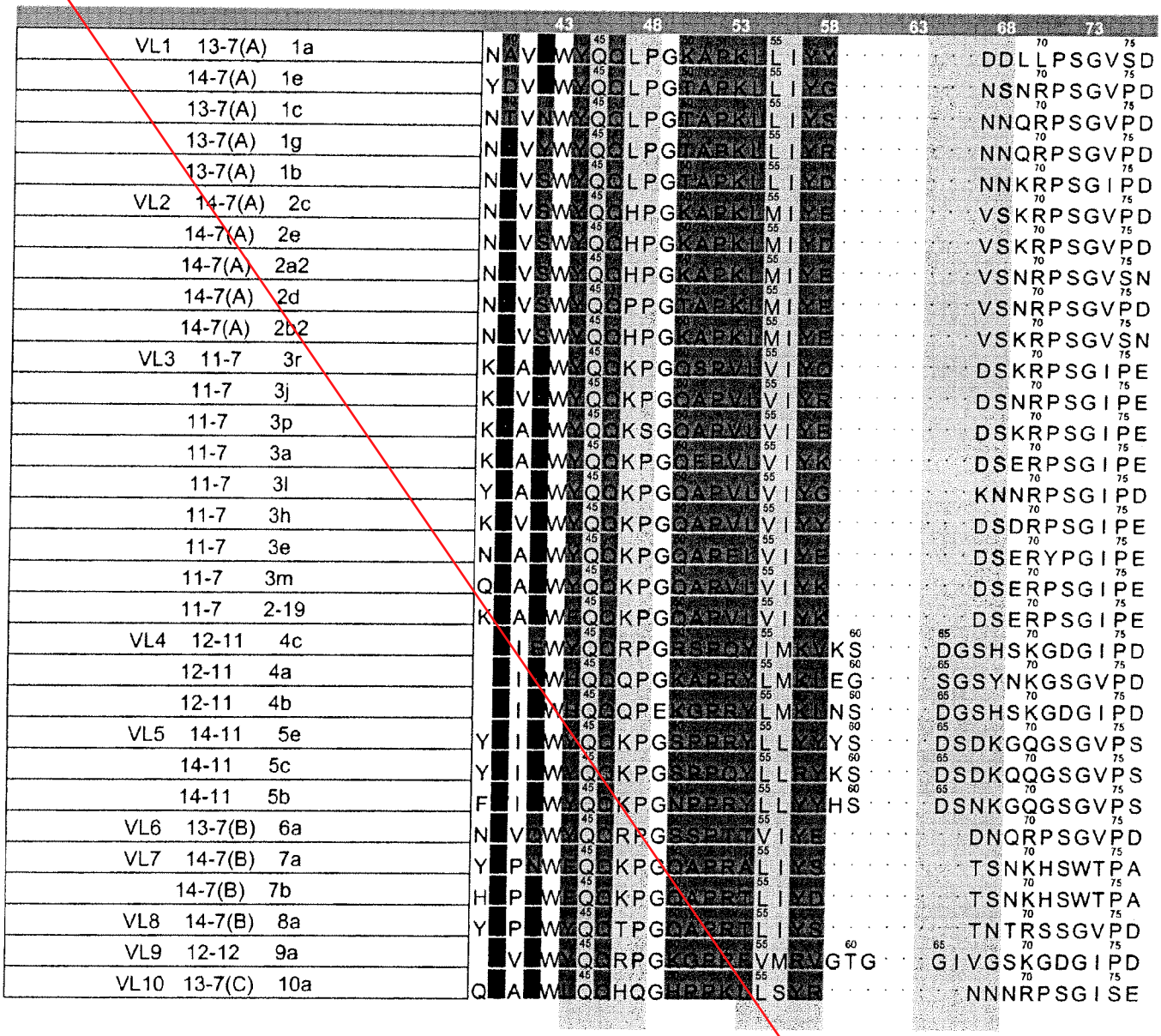
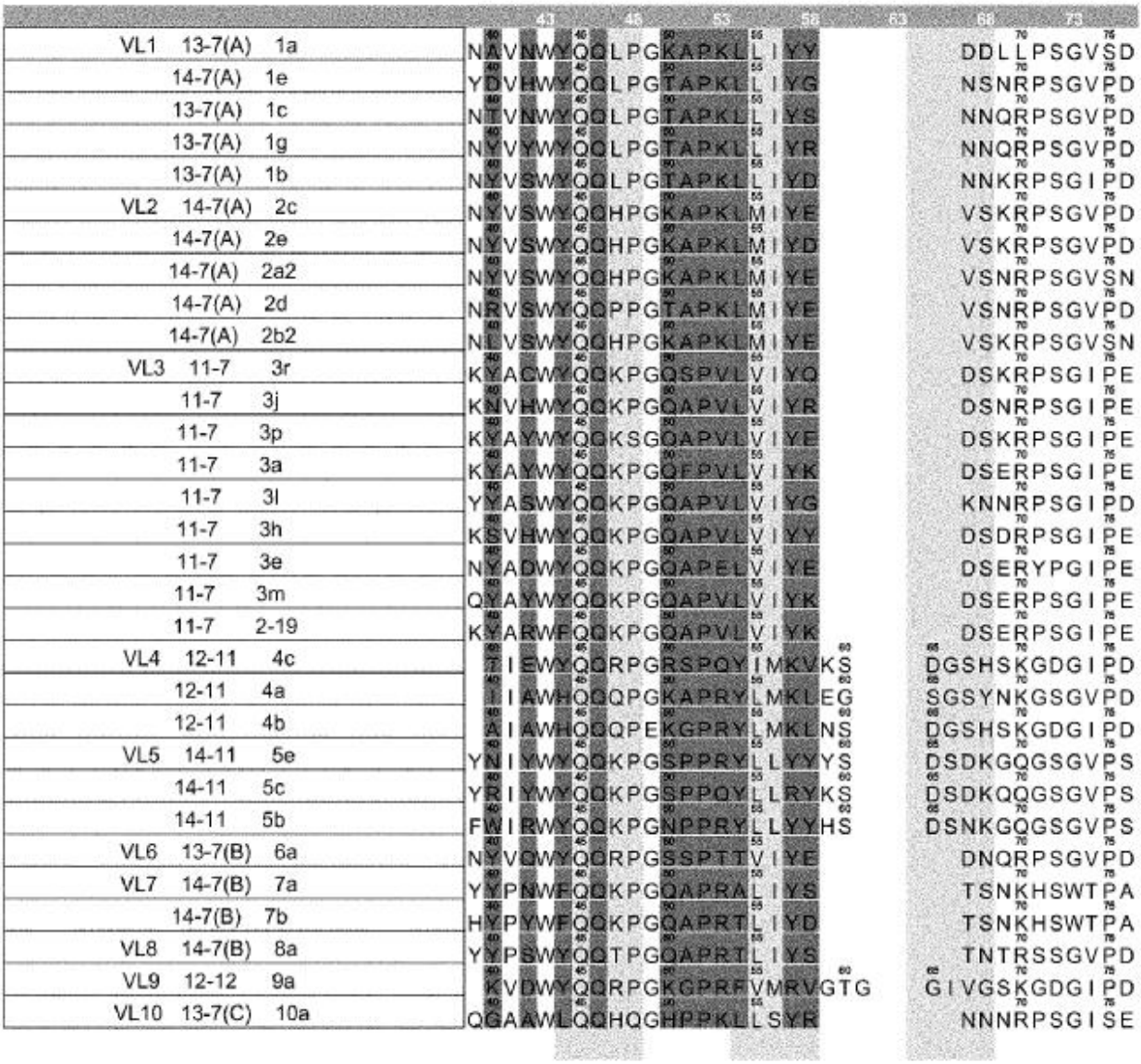

VL1 13-7(A) 1a
14-7(A) 1e
13-7(A) 1c
13-7(A) 1g
13-7(A) 1b
VL2 14-7(A) 2c
14-7(A) 2e
14-7(A) 2a2
14-7(A) 2d
14-7(A) 2b2
VL3 11-7 3r
11-7 3j
11-7 3p
11-7 3a
11-7 3l
11-7 3h
11-7 3e
11-7 3m
11-7 2-19
VL4 12-11 4c
12-11 4a
12-11 4b
VL5 14-11 5e
14-11 5c
14-11 5b
VL6 13-7(B) 6a
VL7 14-7(B) 7a
14-7(B) 7b
VL8 14-7(B) 8a
VL9 12-12 9a
VL10 13-7(C) 10a

Figure 7A continued on 16/23



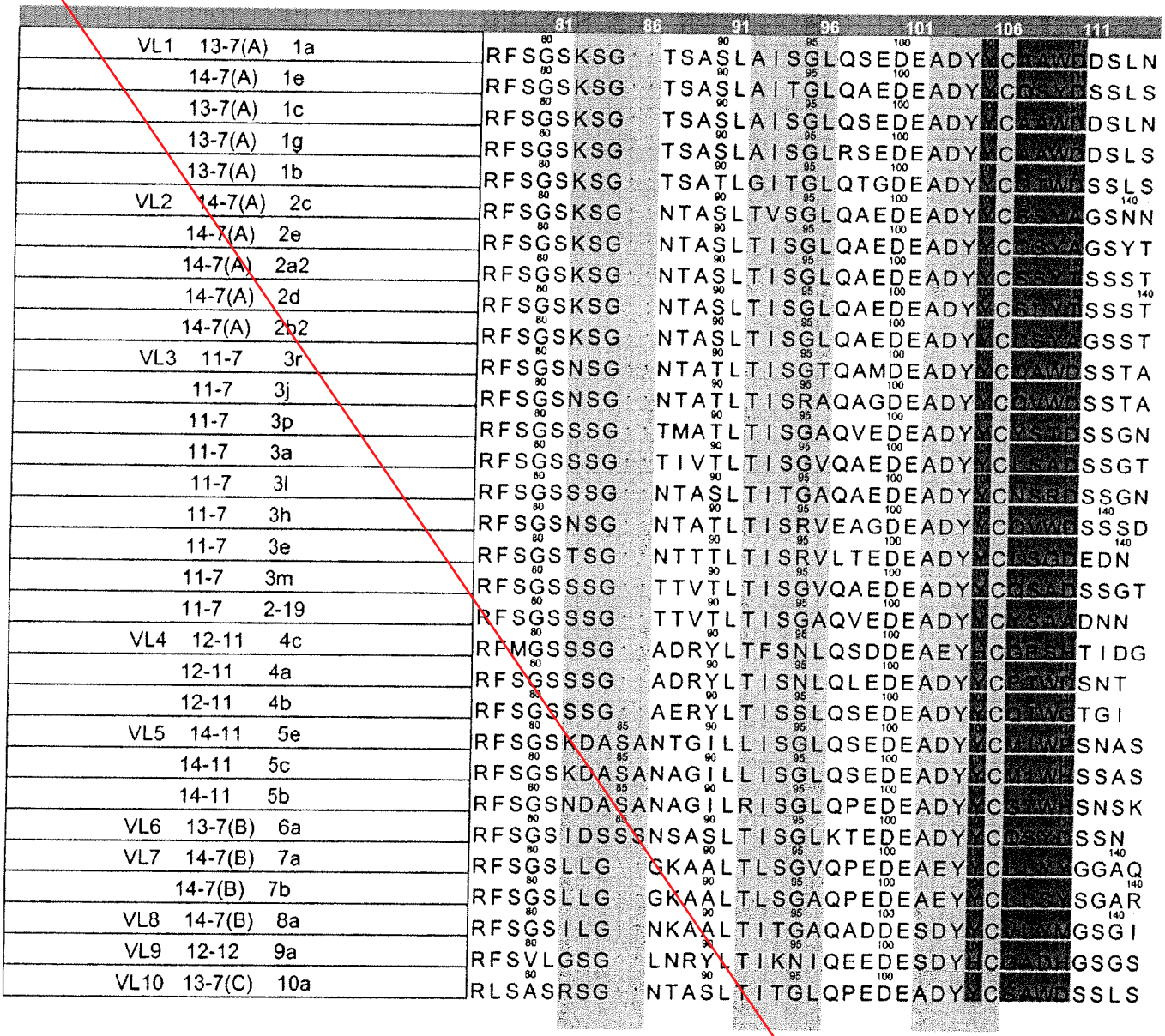

81 86 91 96 101 106 111
VL1 13-7(A) 1a RFSGSKSG TSASLAISGLQSEDEADYYC DSLN
14-7(A) 1e RFSGSKSG TSASLAITGLQAEDEADYYC SSLS
13-7(A) 1c RFSGSKSG TSASLAISGLQSEDEADYYC DSLN
13-7(A) 1g RFSGSKSG TSASLAISGLRSEDEADYYC DSLS
13-7(A) 1b RFSGSKSG TSATLGITGLQTGDEADYYC SSLS
VL2 14-7(A) 2c RFSGSKSG NTASLTVSGLQAEDEADYYC GSNN
14-7(A) 2e RFSGSKSG NTASLTISGLQAEDEADYYC GSYT
14-7(A) 2a2 RFSGSKSG NTASLTISGLQAEDEADYYC SSST
14-7(A) 2d RFSGSKSG NTASLTISGLQAEDEADYYC SSST
14-7(A) 2b2 RFSGSKSG NTASLTISGLQAEDEADYYC GSST
VL3 11-7 3r RFSGSNSG NTATLTISGTQAMDEADYYC SSTA
11-7 3j RFSGSNSG NTATLTISRAQAGDEADYYC SSTA
11-7 3p RFSGSSSG TMATLTISGAQVEDEADYYC SSGN
11-7 3a RFSGSSSG TIVTLTISGVQAEDEADYYC SSGT
11-7 3l RFSGSSSG NTASLTITGAQAEDEADYYC SSGN
11-7 3h RFSGSNSG NTATLTISRVEAGDEADYYC SSSD
11-7 3e RFSGSTSG NTTTLTISRVLTEDEADYYC EDN
11-7 3m RFSGSSSG TTVTLTISGVQAEDEADYYC SSGT
11-7 2-19 RFSGSSSG TTVTLTISGAQVEDEADYYC DNN
VL4 12-11 4c RFMGSSSG ADRYLTFSNLQSDDEAEYFC TIDG
12-11 4a RFSGSSSG ADRYLTISNLQLEDEADYYC SNT
12-11 4b RFSGSSSG AERYLTISSLQSEDEADYYC TGI
VL5 14-11 5e RFSGSKDASANTGILLISGLQSEDEADYYC SNAS
14-11 5c RFSGSKDASANAGILLISGLQSEDEADYYC SSAS
14-11 5b RFSGSNDASANAGILRISGLQPEDEADYYC SNSK
VL6 13-7(B) 6a RFSGSIDSSSNSASLTISGLKTEDEADYYC SSN
VL7 14-7(B) 7a RFSGSLLG GKAALTLSGVQPEDEAEYYC GGAQ
14-7(B) 7b RFSGSLLG GKAALTLSGAQPEDEAEYYC SGAR
VL8 14-7(B) 8a RFSGSILG NKAALTITGAQADDESDYYC GSGI
VL9 12-12 9a RFSVLGSG LNRYLTIKNIQEEDESDYHC GSGS
VL10 13-7(C) 10a RLSASRSG NTASLTITGLQPEDEADYYC SSLS

Figure 7A continued on 17/23

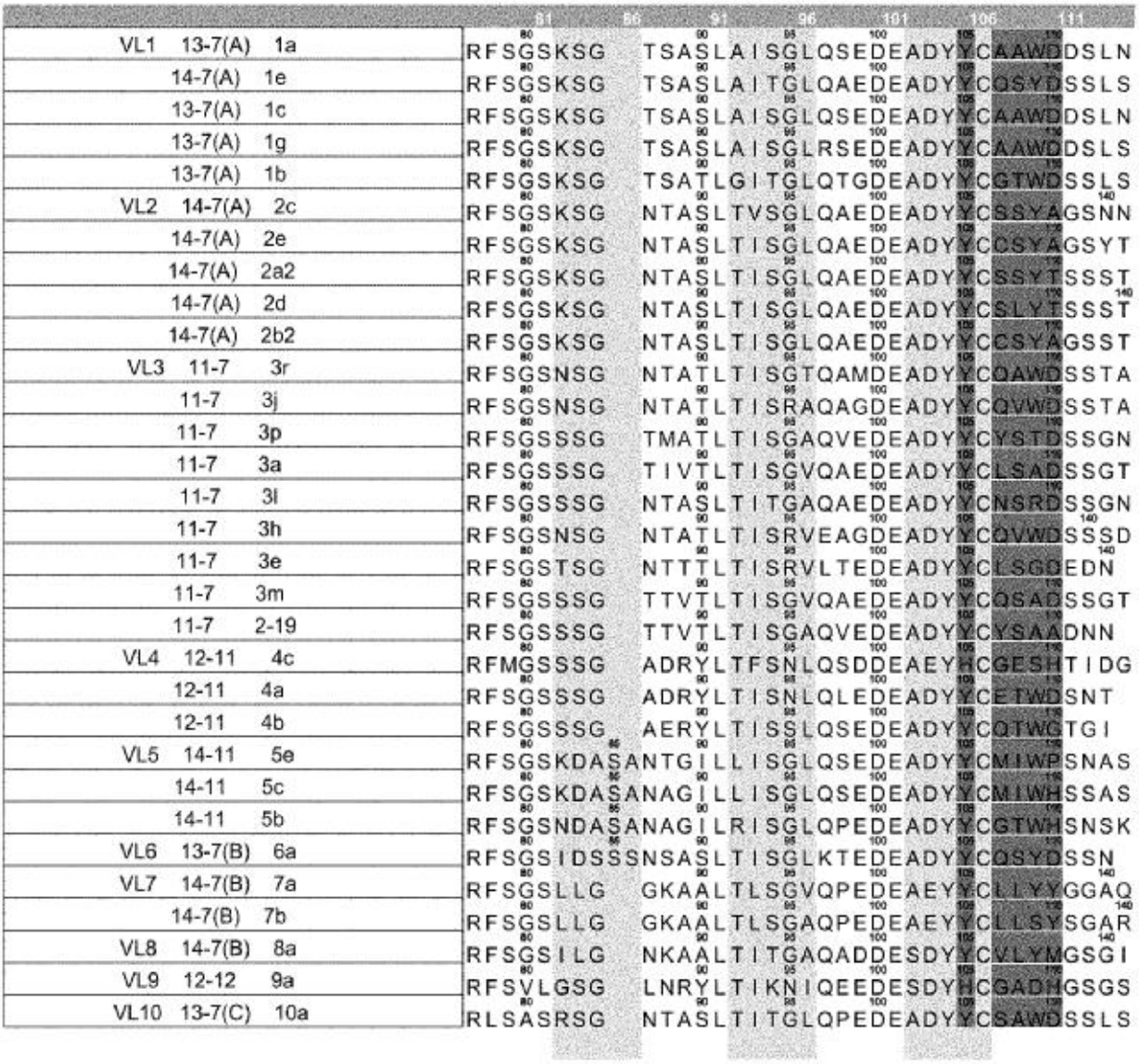


FIGURE 7B

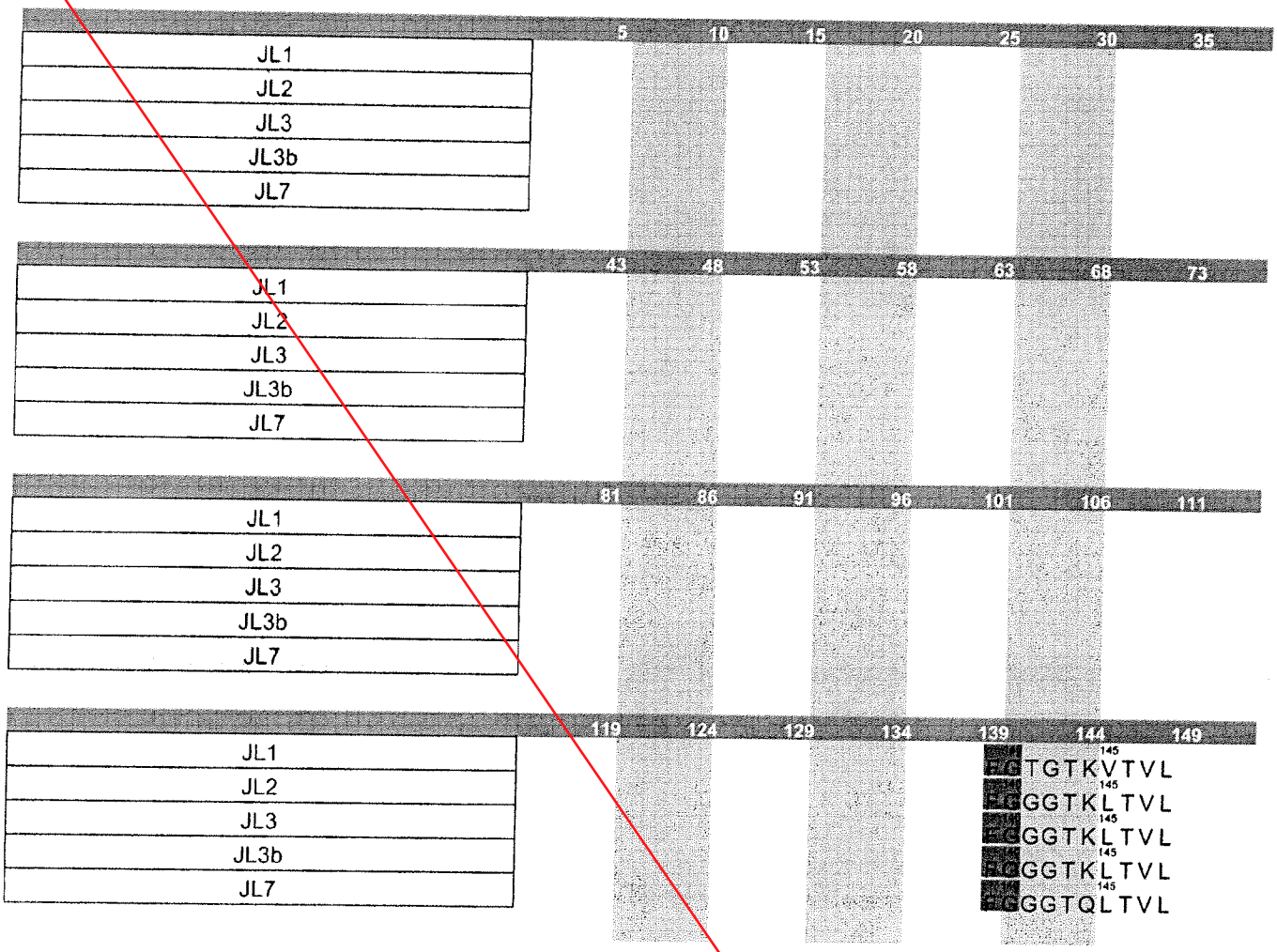
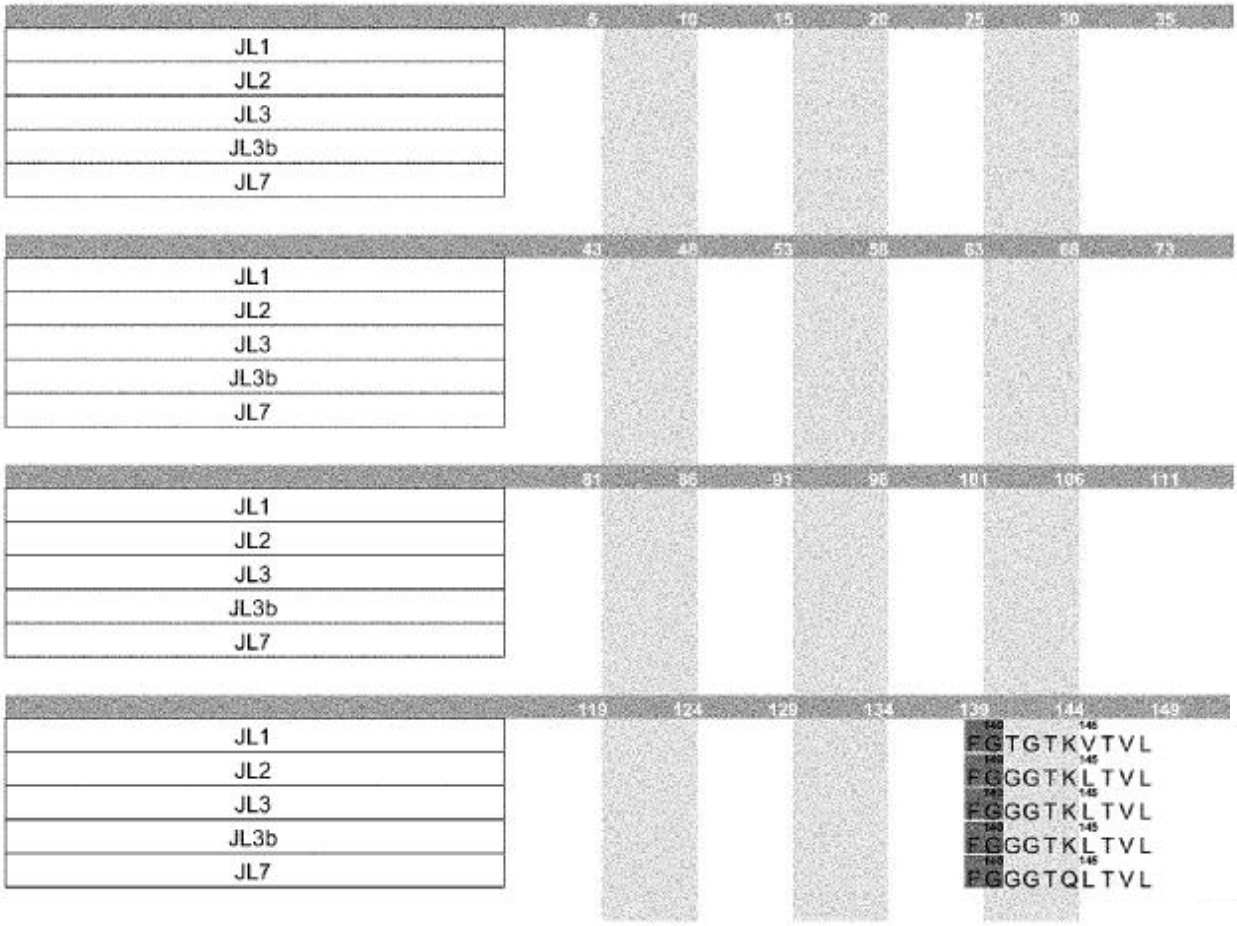

JL1
JL2
JL3
JL3b
JL7
5 10 15 20 25 30 35
43 48 53 58 63 68 73
81 86 91 96 101 106 111
119 124 129 134 139 144 149
FGTGTKVTVL
FGGGTKLTVL
FGGGTKLTVL
FGGGTKLTVL
FGGGTQLTVL
145

Figure 7B


JL1
JL2
JL3
JL3b
JL7
FGTGTKVTVL
FGGGTKLTVL
FGGGTKLTVL
FGGGTKLTVL
FGGGTQLTVL

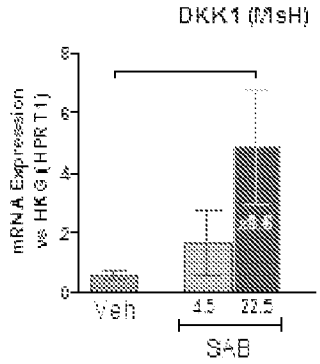


Figure 8

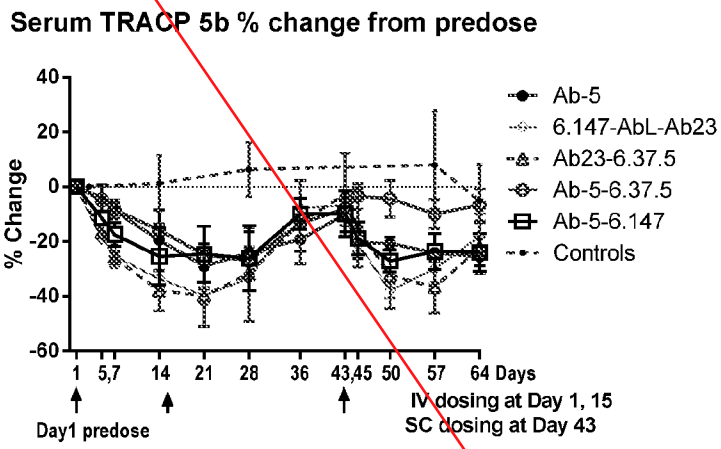


Figure 9

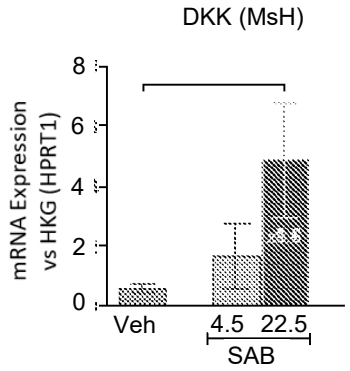


Figure 8

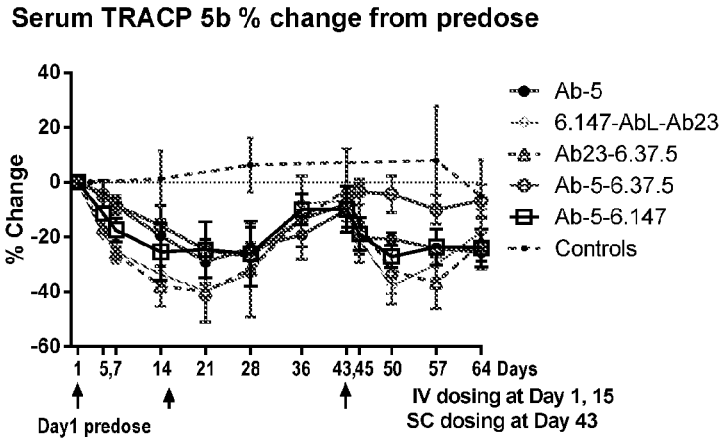


Figure 9