

**Table S4. V gene usage and deduced aminoacid sequences of CDR3 after one round of activation/selection on HeLa cells.**

Clone num	VH Family	VH Gene	VH CDR3	VL Family	VL Gene	VL CDR3	N° repetition
35	VH1	hv1f10t, DP7/21-2...+, VH1-46, IGHV1-46*03, IGHV1-46*01	CLRD	VL2	011, 01, IGKV2D-40*01, IGKV2-40*01	MQRIEFRRT	0
67	VH1	DP-14/V1-18+, VH1-18, IGHV1-18*01	SDGFMPGARSWK	VL2	011, 01, IGKV2D-40*01, IGKV2-40*01	MQRIEFRLLT	0
119	VH1	DP-14/V1-18+, VH1-18, IGHV1-18*01	VDPLSW	VL2	V1-9, IGLV2-33*01	SLYSSIYS	0
69	VH1	DP-15/V1-8+, VH1-18, IGHV1-18*01	DTML	VL2	A3, A19, IGKV2D-28*01, IGKV2-28*01	MQALQTRT	0
25	VH1	DP-3+, IGHV1-f*01	STVRV	VL2	A7, IGKV2D-24*01	TQATQFHCT	0
135	VH1	DP-3+, IGHV1-f*01	NAMWQW	VL3	A27, IGKV3-20*01	QQYGSST	0
75	VH5	DP-73/V5-51...+, VH5-51, IGHV5-51*01	LTPPHL	VL2	A2, IGKV2D-29*01	MQSIQLPVGT	0
146	VH1	DP-14/V1-18+, VH1-18, IGHV1-18*01	RVKHTW	VL2	A17, IGKV2-30*01	MQGTHWRVFT	2
4	VH5	DP-73/V5-51...+, VH5-51, IGHV5-51*01	DGQWGIEW	VL3	V2-13, IGLV3-19*01	NSRDSSG-V	0
102	VH3	DP31/V3-9P...+VH3-9, IGHV3-9*01	AASTSTA	VL3	V2-13, IGLV3-19*01	NSRDSSG-V	0
114	VH1	DP-25/VI-3b, IGHV1-3*01	SSAPR	VL3	V2-13, IGLV3-19*01	NSRDSSGYV	0
145	VH1	DP-75/VI-2...+, VH1-2, IGHV1-2*02	NQWKKWW	VL3	V2-13, IGLV3-19*01	NSRDSSG-TV	2
58	VH1	DP-1/HC15-1	VGRS	VL8	V3-4, IGLV8-61*01	VLYMGSGV	2
47	VH1	DP-5/VH1-24P+VH1-24, IGHV1-24*01	PSCV	VL4	V5-1, IGLV4-3*01	GESHTIDGQVDV	0
55	VH1	DP-4+, VH1-45, IGHV1-45*02	GFDMLKE	VL4	V5-1, IGLV4-3*01	GESHTIDGQVQV	0
79	VH1	DP-1/HC15-1	EPPGWE	VL4	V5-1, IGLV4-3*01	GESHTIDGQVVF	2
108	VH1	hv1f10t, DP7/21-2...+, VH1-46, IGHV1-46*03, IGHV1-46*01	PLVRP	VL4	V5-1, IGLV4-3*01	GESHTIDGQVVY	0
53	VH1	DP-14/V1-18+, VH1-18, IGHV1-18*01	WWMARKL	VL4	V5-1, IGLV4-3*01	GESHTIDGQVVF	0
9	VH6	IGHV6	LIREW	VL1	V1-11, IGLV1-36*01	AAWDDSLLGIV	0
111	VH6	IGHV6	TDNWL	VL3	V2-13, IGLV3-19*01	KAWDNRLVSV	0
132	VH6	IGHV6	FIPQTFDYW	VL3	V2-13, IGLV3-19*01	TPGTAVVTMYSAEGP	0
59	VH6	IGHV6	PGWAN	VL2	011, 01, IGKV2D-40*01, IGKV2-40*01	MQRIEFPT	0
131	VH6	IGHV6	NTHTRFDYW	VL1	04, 014, IGKV1D-37*01, IGKV1-37*01	QRTYNAHHG	2
112	VH6	IGHV6	GGAQQFDY	VL1	L24, IGKV1D-8*01	QQYYSFQTRP	0
34	VH3	IGHV3	FMRHT	VL1	V1-11, IGLV1-36*01	AAWDDSLLV	0
83	VH3	DP-45	TCHSGWPLAH	VL2	V1-7, IGLV2-23*03, IGLV2-23*01	CSYAGSSFWV	0
121	VH4	VH5/4d76...+, DP-63/VH4.21...+, VH4-34, IGHV4-34*01	NTHTRFDYW	VL2	V1-7, IGLV2-23*03, IGLV2-23*01	QRTYNAHHG	0
2	VH1	DP-1/HC15-1	QDL	VL1	V1-17, IGLV1-47*02	AAWDDSLQTV	3
45	VH5	DP-73/V5-51...+, VH5-51, IGHV5-51*01	HATSGK	VL1	V1-18, IGLV1-50*01	KAWDNSLV	0
40	VH1	DP-10/HV1051...+, IGHV1-69*01	WTHRQVGNVT	VL1	V1-11, IGLV1-36*01	AAWDDSLV	0
140	VH1	DP-10/hv1051...+, IGHV1-69*01	LYPPTW	VL1	V1-16, IGLV1-44*01	AAWDDRL	0
37	VH1	hv1f10t, DP7/21-2...+, VH1-46, IGHV1-46*03, IGHV1-46*01	PPNLRCNS	VL1	IGLV1-47*01	AAWDDSLSVLV	0
139	VH1	hv1f10t, DP-7/21-2...+, VH1-46, IGHV1-46*03, IGHV1-46*01	LKQQWDQHWLW	VL1	L24, IGKV1D-8*01	QQYYSFQCA	0
65	VH1	DP-75/VI-2...+, VH1-2, IGHV1-2*02	VTGDASF	VL1	IGLV1-47*01	AAWDDSLV	2
60	VH1	DP-4+, VH1-45, IGHV1-45*02	YGNRTN	VL1	IGLV1-47*01	AAWDDSLV	0
70	VH1	DP-14/V1-18+, VH1-18, IGHV1-18*01	ITSAS	VL1	V1-16, IGLV1-44*01	AAWDDSLV	0
91	VH1	COS-14/HC15-5	CEQEM	VL1	V1-16, IGLV1-44*01	AAWDDSLPVPV	0
133	VH1	COS-14/HC15-5	LWLRCFDYW	VL3	V2-1, IGLV3-1*01	QAWDDSTTW	0
92	VH1	DP-2/V71-5+, IGHV1-58*01	SPNPRGC	VL1	IGLV1-47*01	AAWDDSLFV	0
61	VH5	DP-73/V5-51...+, VH5-51, IGHV5-51*01	LVSWSFDY	VL1	L8, IGKV1-9*01	QLNLSYLT	0
63	VH5	DP-73/V5-51...+, VH5-51, IGHV5-51*01	PKRTSLSL	VL7	IGLV7-46*01	LLSYSGAHTV	0
49	VH1	DP-14/V1-18+, VH1-18, IGHV1-18*01	LFRQGF	VL1	04, 014, IGKV1D-37*01, IGKV1-37*01	QRTYNAQT	0
56	VH7	VI-4.1b+, IGHV7-4-1*01	GRWTCWDTVH	VL1	04, 014, IGKV1D-37*01, IGKV1-37*01	QRTYNAQT	0
31	VH1	DP-10/HV1051...+, IGHV1-69*01	FSTGTFN	VL1	L24, IGKV1D-8*01	QQYYSFLSST	2
115	VH1	DP-25/VI-3b, IGHV1-3*01	RYKHQNIQIC	VL4	B3, IGKV4-1*01	QQYYSTLTFG	2
24	VH1	VH1-58, IGHV1-58*02	ARWA	VL2	011, 01, IGKV2D-40*01, IGKV2-40*01	LHNFTRLRSA	0
16	VH1	DP-14/V1-18+, VH1-18, IGHV1-18*01	APREA	VL3	A11, IGKV3D-20*01	MVAHTLLRSA	0
28	VH4	DP-68/1.9I...+ 4.42/VH4.13..., VH4-28, IGHV4-28*03, IGHV4-28*03	REVIY	VL1	L24, IGKV1D-8*01	QQYYSHFVRS	0
130	VH3	DP-48/13-2+, VH3-13, IGHV3-13*01	WEYTAW	VL1	08, 018, IGKV1D-33*01, IGKV1-33*01	QQYDNL	0
120	VH1	DP-75/VI-2...+, VH1-2, IGHV1-2*02	SSRSEIW	VL1	08, 018, IGKV1D-33*01, IGKV1-33*01	QQYDNL	0
136	VH1	DP-75/VI-2...+, VH1-2, IGHV1-2*02	NQWKKWW	VL3	L25, IGKV3/OR2-268*02, IGKV3D-7*01	QQYDNLH	0
141	VH4	DP-66/V71-2...+, IGHV4-61*07, IGHV4-61*01	NRLFVATW	VL1	V1-19, IGLV1-51*01	GTWDDSSLS	0