

Table S1 Characterization data monovalent anti-PcrV Nanobodies

Nanobody	P3X63 cell death assay		Off-rate (s ⁻¹)	Epitope binning			Sequence
	pIC50 (M)	Efficacy (%) [†]		Nanobody bin (ELISA)	Nanobody bin (SPR)	Fab1A8 competition	
1E11	7.6	58	3.5 x 10 ⁻⁰⁴	bin 1	bin 1	No	EVQLVESGGGLVQPGGSLRLSCAASGSTRSVNPMAWFRQAPGRQ REWVATISRSGYATYADSVKGRFTISGDNAKSSVYLQMNSLKPED TAVYYCVTGTGYWGQGLTVTVSS
2B02	5.8	100	3.7 x 10 ⁻⁰⁴	bin 1	ND	No	EVQLVESGGGLVQPGGSLRLSCAASGRILSINNVMWYRQAPGKQ RELVAHITSSGSTGYADSVKGRFTISRDNKNTFYLQMTNLPED TAVYYCNCWVSSDSNAPLKNYWGQGTQVTVSS
2B10	6.2	100	1.8 x 10 ⁻⁰⁴	bin 1	ND	No	EVQLVESGGGLVQPGGSLRLSCAASGSIFSINNMGWYRQAPGKQ RELVTVVTSNLITTYADSVKGRFTISRDNKNTVYLQMNSLKPED TAVYYCNAWARSVGSVPYSQFWGQGLTVTVSS
2G09	8.4	55	1.0 x 10 ⁻⁰³	bin 1	ND	No	EVQLVESGGGLVQPGGSLRLSCAASGSFGDNYELYAMTWFRQAP GERRDFVASVTGDGSTSYADSVKDRFTISRDNKAKLQMYLQMN SLKPEDTAVYYCRLLNWYGQGLTVTVSS
3B11	< 6.0 [†]		2.7 x 10 ⁻⁰³	ND	bin 1 & 2	No	EVQLVESGGGLVQAGGSLRLSCAASGFTFDDYVIGWFRQAPGKE REGVSCISRLDGRTYTDSVKGRFTISSDNAKNTVYLQMNSLKPE DTAVYYCALEPRYTGDYYPVHPELYDYWGQGTQVTVSS
3E10	7.3	94	1.5 x 10 ⁻⁰³	ND	bin 1 & 2	Yes	EVQLVESGGGLVQAGGSLRLSCTASGHTFSSYTMGWFRQAPGKE REFVAAMTRSGFNTHYSDSVKGRFTISRDNKNTSRDNTKITMALQ MNSLKPEDTAVYYCTTGRGLTSYVANFWGQGTQVTVSS
4C03	< 5.3 [†]		6.8 x 10 ⁻⁰³	ND	bin 1	No	EVQLVESGGGLVQAGGSLRLSCVISASTVRNYDMGWFRQAPGKE REFVAIDWSGGSTRYADSVKGRFTVSRDNKNTVYLQMNSLKPE DNTAVYYCVAAGFYNNYLRTAPNDWNYWGQGLTVTVSS
4G10	7.0	100	1.3 x 10 ⁻⁰⁴	ND	bin 1	No	EVQLVESGGGLVQAGGSLRLSCVISEDGVRNYDMGWFRQAPGKE REFVATINWSGGSTNYADSVKGRFTVSRDNKNTMYLQMDSLKP EDTAVYYCVAAGFYNNYLRTAPNDWWDWGQGTQVTVSS
5E02	7.4	100	5.7 x 10 ⁻⁰⁴	ND	bin 2	Yes	EVQLVESGGGLVQPGGSLRLSCAASGITLDSIAICWFRQAPGKERE GVSCSRGSDGSTYYADSVKGRFTISRNVNAKNTVYLQMNSLKPED TAVYYCAAAPSIFYSGGYFSPGMDYWGKGTQVTVSS
5H01	8.2	100	4.9 x 10 ⁻⁰⁵	bin 2	bin 2	Yes	EVQLVESGGGLVQPGGSLRLSCAASGSTLDYYAIGWFRQAPGKE REGVSCSNTSGSTYYGGSVKGRFTASRDNAKNTVYLQMNSLRPE DTAVYYCVATIGCATLGGTLDVQRYYYRGGGTQVTVSS
6B05	6.4	100	1.8 x 10 ⁻⁰⁴	bin 1	ND	No	EVQLVESGGGLVQPGGSLRLSCAASGSIFSINTMGWYRQAPGKQR

							ELVSTITSNLVPHYADSVQGRFTISRDNARNTVYLQMNSLKPQDT AHYYCNAWARSSGATPYTNYWGQGLTVTVSS
7C10	7.4	100	8.2×10^{-04}	bin 1 & 2	ND	Yes	EVQLVESGGGLVQAGGSLRLSCTASGRTLSSYTMGWFRQAPGTE REFVAAMTRSGFNTYYADSVKGRFTISRDNSTENTMALQMSSLKPE DTAVYYCTAGRGLTSYRADYWGQGLTVTVSS
7E09	NB		4.0×10^{-04}	bin 3	ND	No	EVQLVESGGGLVQAGGSLRLSCAASGRTFSSYIMGWFRQAPGKA REFVADITWGQRPYYADSVKGRFTISRDNKNTVYLEMNSLKPPE DTAVYYCAADLGVVIREEHAYWGQGLTVTVSS
10C05	$< 6.0^\dagger$		6.0×10^{-04}	bin 1	ND	No	EVQLVESGGGLVQPGGSLRLSCAASGSIFSINTMGWYRQAPGKQR DLVASITMNQVPNYADSVQGRFTISRDNVRNTVHLMQNAVKPED TADYFCNAWVRSSGASPYTNYWGQGTQVTVSS
11B09	7.0	100	4.8×10^{-03}	bin 1	ND	No	EVQLVESGGGLVQAGGSLRLSCAASRLTFNHYNMGWFRQAPGK ERERVAEVTWSGDKIYYVDSVKGRFTISRDNTPNPVYLYLQMNS LKPEDTAVYYCATAPRGLPYANGYWGQGTQVTVSS
12B02	NB		4.4×10^{-05}	ND	bin 4	No	EVQLVESGGGLVQPGGSLRLSCAASGFSLGVAIGWFRQAPGKER EGVSCIDSSDGRTTYADSVKGRFTISRDNKNTVYLQMNSLKPED TAVYYCATDIETDVCSGAGWGFWGQGTQVTVSS
13F07	$< 5.0^\dagger$		2.0×10^{-03}	bin 3	bin 3	No	EVQLVESGGGLVQAGGSLRLSCAASGNTFSTNPMYWRQAEQK QRELVASISSRGITNYADSVRGRFSISRDNKDTVYLQMNSLKPED TAVYYCRLASLSSGTVYWGKGLTVTVSS
14B10	$< 5.5^\dagger$		9.2×10^{-04}	ND	bin 1	No	EVQLVESGGGLVQPGGSLRLSCAASGRIFSINNMGWYHQAPGKQ RELVATITMNGITTYADSVKGRFTISRDNKNTVYLQMNSLKPED TAVYYCSCWVRSSGGDPYRDYWGQGTQVTVSS
14E10	$< 5.5^\dagger$		6.0×10^{-04}	bin 1	ND	No	EVQLVESGGGLVQPGGSLRLSCAASGRIFSINTMGWYRQAPGKQ RELVAGVTINAITNYADSVKGRFTISRDNKNTVWLQMNSLKPPE DTAVYYCHAWARSSGSAPYSQNWGQGTQVTVSS

[‡]: Efficacy (% inhibition of *Pa*-mediated cell death) is expressed relative to the assay window spanned by the condition in absence of *Pa* (no *Pa*-mediated cell death) and the condition in the presence of *Pa* without blocking Nanobody (no inhibition of *Pa*-mediated cell death) (see also Table 1 and Fig. 6A).

ND: not-determined

NB: No blocking observed in tested concentration range

[†]: No complete dose response curve obtained in tested concentration range