

Table S1. Recombinant VP1- and VP2-derived fragments and synthetic peptides of RV89.

Antigen	Amino Acid Sequence	Position	Length (aa)	MW (Da)
89VP1-PI	NPVENYIDSVLNEVLVVPNIQPSTSVSSHAAPALDAAETGHTSSVQPEDMIETRY VITDQTRDETSIESFLGRSGCIAMIEFNTSSDKTEHDKIGKGFKT	1-100	100	10870
89VP1-PII	WKISLQEMAQIRRKYEFTYTRFDSEITIVTAAAAQGDDSGHIVLQFMYV PPGAPVPEKRDDYTWQSGTNASVFWQEGQPYPRFTIPFMSIASAYYMFYD	101-200	100	11636
89VP1-PIII	GYDGDASAASKYGSVVTNDMGTCVRIVTSNQKHDLNIVCRIYHKAKHIKAW CPRPPRAVAYQHTHSTNYIPSNGEATTQIKTRPDVFTGTNV	201-293	92	10174
89VP1-p1	NPVENYIDSVLNEVLVVPNIQPSTSVSSHAAPAC	1-33	34	3564
89VP1-p2	LDAAETGHTSSVQPEDMIETRYVITDQTRDETS	34-66	34	3800
89VP1-p3	IESFLGRSGCIAMIEFNTSSDKTEHDKIGKGFKTWKISLQEMC	67-108	43	4867
89VP1-p4	WKISLQEMAQIRRKYEFTYTRFDSEITIVTAAC	101-133	34	4112
89VP1-p5	AAAQGDDSGHIVLQFMYVPPGAPVPEKRDDYTWQSGTNASVFC	133-174	43	4627
89VP1-p6	SGTNASVFWQEGQPYPRFTIPFMSIASAYYMFYDC	167-200	35	4076
89VP1-p7	ASAYYMFYDGYDGDASAASKYGSVVTNDMGTCVRIVTSNQKHC	192-233	43	4690
89VP1-p8	DLNIVCRIYHKAKHIKAWCPRPPRAVAYQHTHSC	234-266	34	4013
89VP1-p9	TNYIPSNGEATTQIKTRPDVFTGTNV	267-292	27	2928
89VP2-PI	SPTVEACGYSRDLIQITRGDSTITSQDTANAVVAYGVWPSYLTTPDDATAIDK PTQPDTSNRFTLDSRSWTSASGWWWKLPDALKNMG	1-89	89	9805
89VP2-PII	IFGENMFYHFLGRSGYTIHVQCNSKFHQGLLIVAAIPEHQLASATSGNVSV GYNHHTHPGEQGREVVPSRTSSDNKRPSDDSWLNFDGTL	90-179	90	9917
89VP2-PIII	LGNLPIYPHQYINLRTNNSATLILPYVNAVPMDSMLRHNWNSLVIIPICPLQ VQPGGTQSIPITVSISPMFSEFSGPRSKVVFSTTQ	180-267	87	9623
89VP2-p1	<u>SPTVEACGYSRDLIQITRGD</u>	1-20	20	2181
89VP2-p2	<u>ITRGDSTITSQDTANAVVAY</u>	16-35	20	2083
89VP2-p3	<u>AVVAYGVWPSYLTTPDDATAI</u>	31-50	20	2109
89VP2-p4	<u>DATAIDKPTQPDTSNRFTY</u>	46-65	20	2228
89VP2-p5	<u>NRFTLDSRSWTSASGWWW</u>	61-80	20	2494
89VP2-p6	<u>SGWWWKLPDALKNMGIFGEN</u>	76-95	20	2350
89VP2-p7	<u>IFGENMFYHFLGRSGYTIHV</u>	91-110	20	2389
89VP2-p8	<u>YTIHVQCNSKFHQGLLIVA</u>	106-125	20	2259
89VP2-p9	<u>LLIVAAIPEHQLASATSGNV</u>	121-140	20	2004
89VP2-p10	<u>TSGNVSVGYNHHTHPGEQGRE</u>	136-155	20	2126
89VP2-p11	<u>EQGREVVPSRTSSDNKRPSD</u>	151-170	20	2244
89VP2-p12	<u>KRPSDDSWLNFDGTLGNLPI</u>	166-186	21	2359
89VP2-p13	<u>GNLPIYPHQYINLRTNNSAT</u>	182-201	20	2287
89VP2-p14	<u>NNSATLILPYVNAVPMDSMLR</u>	197-217	21	2320
89VP2-p15	<u>DSMLRHNWNSLVIIPICPLQ</u>	213-233	21	2449
89VP2-p16	<u>CPLOVQPGGTQSIPITVSIS</u>	229-248	20	2025
89VP2-p17	<u>TVSISPMFSEFSGPRSKVVFSTTQ</u>	244-267	24	2620

Position: denotes the corresponding region of the native VP1/VP2 proteins. Length: indicates the number of amino acids. Underlined amino acids denote overlapping sequences between peptides.

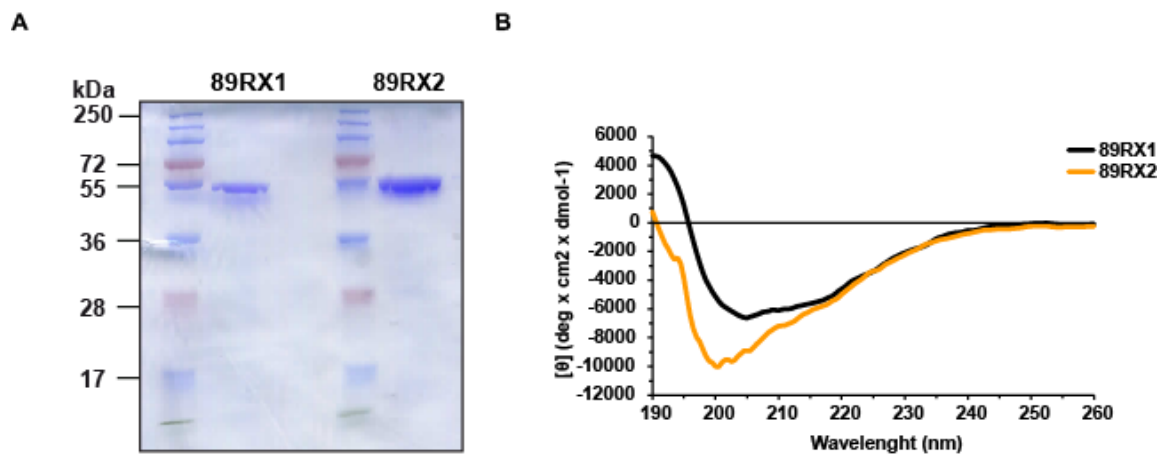


Figure S1. Purification and characterization of 89RX1 and 89RX2. (A) Coomassie-stained gel containing purified 89RX1 and 89RX2. Molecular weights (kDa) are indicated on the left margin. (B) Far-UV CD analysis of the purified PreS-based fusion proteins (i.e., 89RX1: black line; 89RX2: orange line). The spectra were recorded at 25°C and are expressed as mean residue ellipticities (θ , y-axis) at given wavelengths (nm, x-axis).