

Article

Pseudotyping Improves the Yield of Functional SARS-CoV-2 Virus-like Particles (VLPs) as Tools for Vaccine and Therapeutic Development

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Table S1. Templates and primers used in this study.

Template	PCR product	Primer name	Sequence
A/PR/8/34 H1N1 cDNA	HA	HA-For	AATCTAGAATGAAGGCAAACCTACTGGTCC
		HA-Rev	ACAAGCTTTCAGATGCATATTCTGCACTGC
	M1	M1-For	TCCCGGTACCTCACTTGAACCGTTGC
		M1-Rev	ATCACCCGGGATGAGTCTTCTAACC
gBlock S	S	S-For	CGGGCGCGGATCCATGTTTGTGTTCCTTGTTCTTCTTC
		S-Rev	ACTTCTCGACAAGCTTTTAAGTGTAGTGCAGCTTCACGCCCTTCA
gBlock E	E	E-For	ACCATGGCTCGAGTTACACAAGCAAGTCTGG
		E-Rev	TGATCACCCGGGATGTATTCGTTTGTTCAGAAGAAACA
gBlock M	M	M-For	ACCATGGCTCGAGTTATTGTACAAGGAGGGCG
		M-Rev	TGATCACCCGGGATGGCTGACTCAAATGGAAC
pFastBac Dual SM	M cassette	Mcas-For	TTGAGCCTAGGGTGGCTATGGCAGGGCTTGC
		Mcas-Rev	GATCTCCTAGGATACGGACCTTTAATTCAACCCACAC
gBlock – S Omicron	S Omicron	Om-Rev	TGTGTAAGCGATAATTGACTGGGACGCTAC
Template	Quikchange Primer		Sequence
pFastBac Dual SHAM1	K417N-For		GCCCCAGGACAAACAGGTAACATAGCTGACTATAACTAC
	K417N-Rev		CTATGTTACCTGTTTGTCTGCTGGGGCAATCTGTCTG
	L452R-For		GTGGGAGGCAACTACAACACTACAGATACAGACTTTTAGG
	L452R-Rev		CTGTATCTGTAGTTGTAGTTGCCTCCACCTTGCTATC
	T478K-For		AAGCCGGTAGCAAGCCATGTAATGGCGTCGAGGG
	T478K-Rev		CGCCATTACATGGCTTGCTACCGGCTTGATAGATTCCG
	E484K-For		AATGGCGTCAAGGGATTAAATTGTTATTTCCCGTTGCAATCATAAC
	E484K-Rev		AATTAAATCCCTTGACGCCATTACATGGCGTGCTACCG
	N501Y-For		TTTCAGCCGACGTACGGCGTTGGTTATCAACCG
	N501Y-Rev		ATAACCAACGCCGTACGTCGGCTGAAAGCCGTTGATTGC

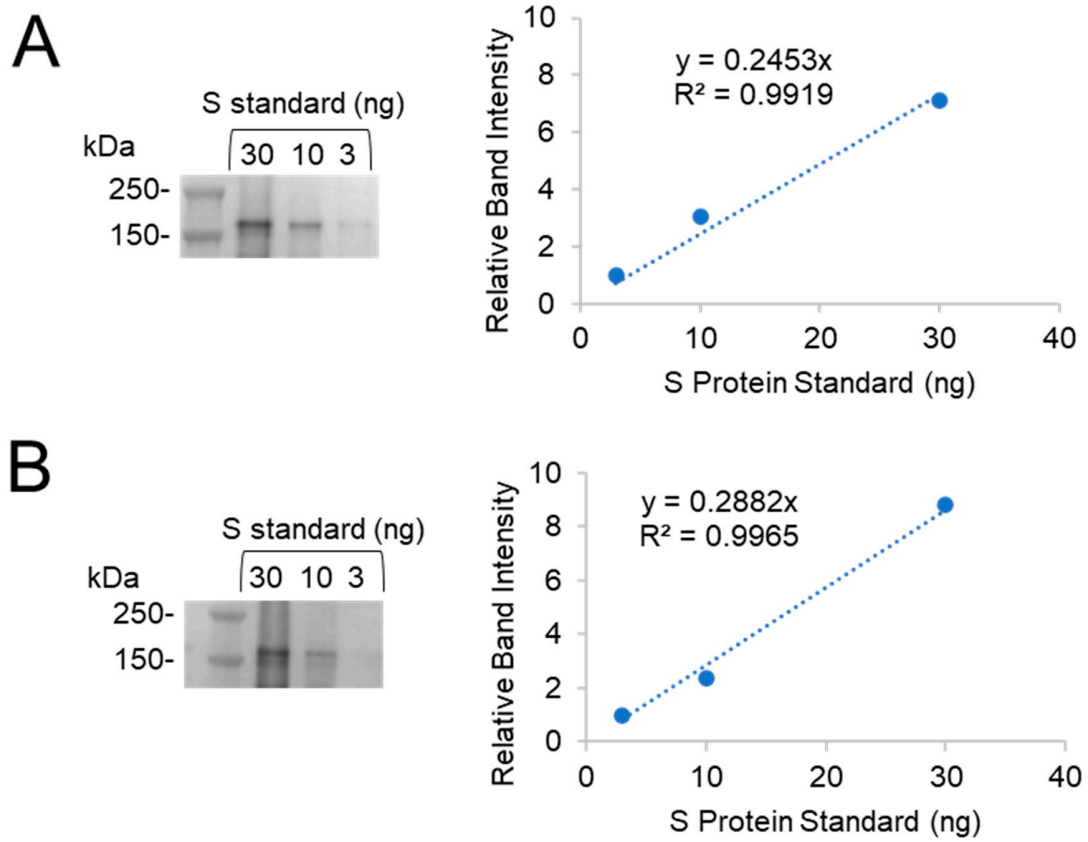


Figure S1. Standard curves for Western blot quantification of S protein in SE, SM, SEM and WT SHAM1 (A) VLPs and (B) cell lysates.

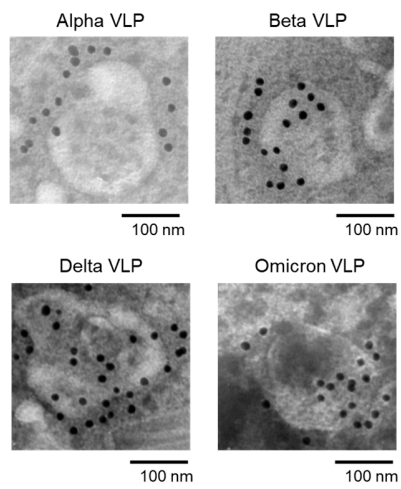
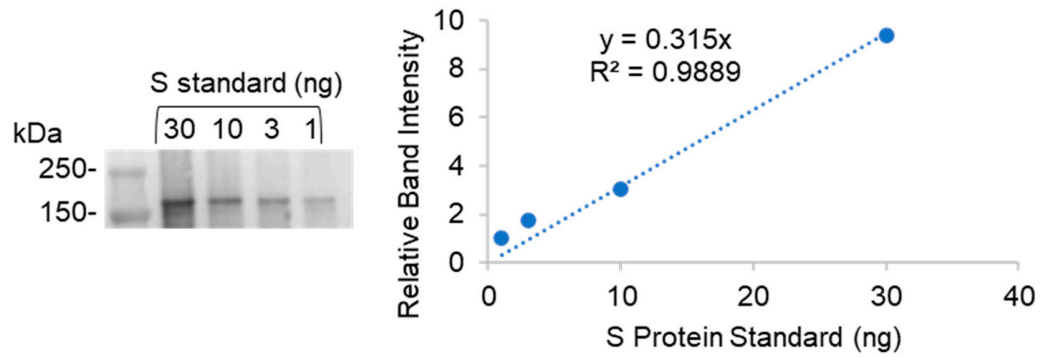


Figure S2. Representative TEM images of pseudotyped variant VLPs in the 150-200 nm size range. Immunogold-labeling was performed using anti-S2.

A



B

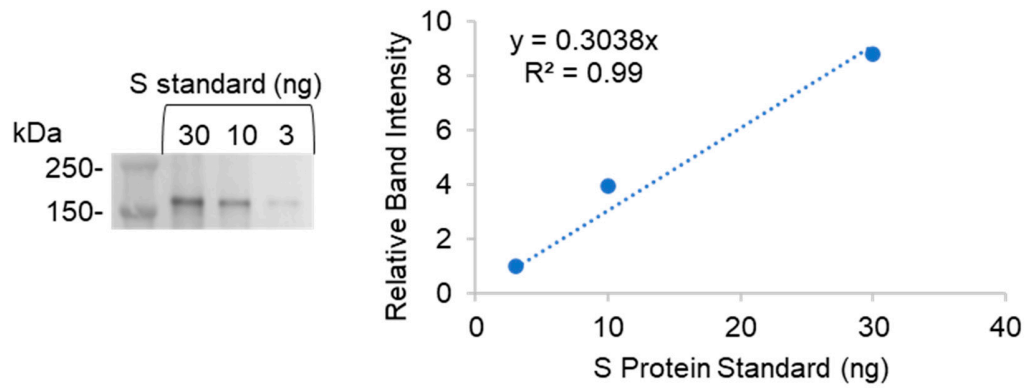


Figure S3. Standard curves for Western blot quantification of S protein in pseudotyped variant (A) VLPs and (B) cell lysates using anti-S2.

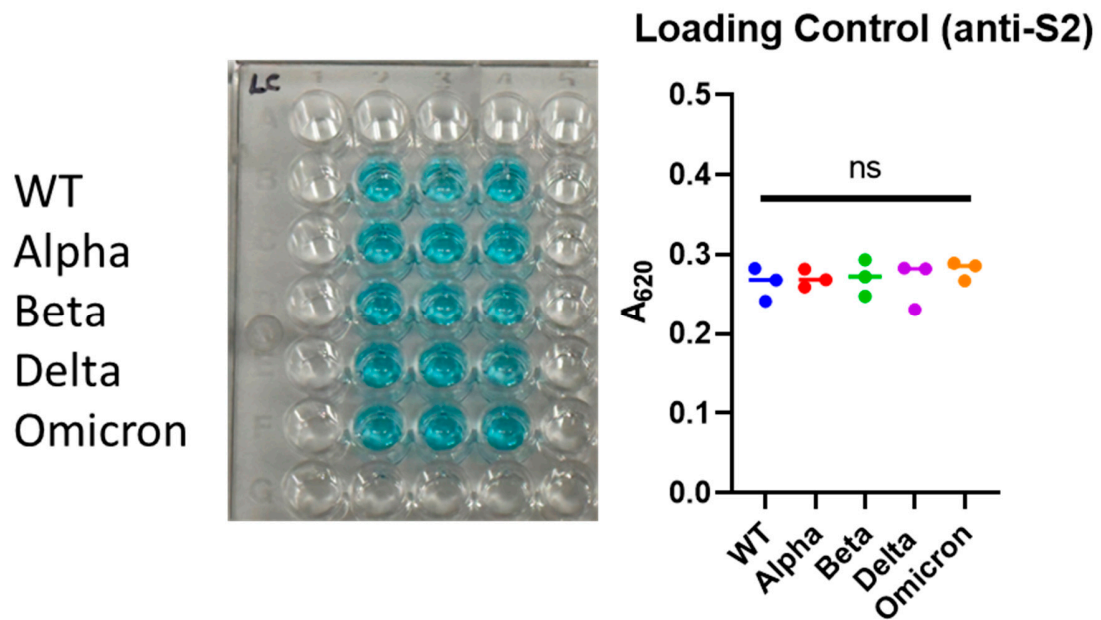


Figure S4. Loading controls to ensure same quantity of S variant VLPs are captured on the plate.

Data represent mean \pm SE ($n = 3$, unpaired Student's t test, all $p > 0.05$, not significant).