

## VaxArray HA Comparison to SRID

Feature	SRID	VaxArray	Notes
Can Distinguish Subtypes	Yes	Yes	Including 2 B lineages
Works with In-Process, Bulk Drug, and Drug Product	Not all crude samples	Yes	Unlike SRID, VaxArray can be used in all upstream processes (including crude samples). Can speed up yield assessment even at seed strain stage.
Works with Adjuvant	Not well	Yes, with all adjuvants tested	Oil in water and Alum-based
Works with Low-Dose	No, QL ~ 6 µg/mL	Yes, QL ~ 0.01 µg/mL	Would enable single vial adjuvanted low-dose vaccine
Adequate Precision and Accuracy	Yes (≤ 20%)	Yes (≤ 15%)	Better precision
Commercial “Off the Shelf” Product	No	Yes	VaxArray manufactured under ISO 13485 QMS significantly improves interlab reproducibility and consistency of vaccine potency determination.
Calibration Linear Dynamic Range	5x (6 – 30 µg/mL)	100x (0.01 – 1.0 µg/mL)	Larger linear dynamic range allows for the analysis of fewer dilutions per sample tested.
Available Year Round	No	Yes	VaxArray could reduce vaccine timeline by weeks; demonstrated robust against antigenic drift.
Indicates Integrity of HA	Yes	Yes	VaxArray is stability indicating.
Multiplexed	No	Yes	Can be used for monovalent and multivalent formulations for consistent results.
Automatable	No	Yes	Automation possible
Total Assay Time	48 hours	2 hours	VaxArray is 24x faster
Hands-On Time	8 hours (12 gels)	30 minutes (2 slides)	Fewer “user-dependent” steps
Labor cost estimate for batch of 8 quadrivalent samples analyzed in triplicate (assumes \$150/hr operational cost)	\$4,800 (8 hours = \$1,200 per strain)	\$75 (Mono or Quad)	Sample prep time is not included; similar between the two assays. <b>SRID Assumptions:</b> 2 samples per gel so 4 gels for 8 samples, 3 gels required for triplicate analysis, therefore 12 gels per strain; 4 strains
Materials cost estimate for batch of 8 quadrivalent samples analyzed in triplicate	\$1,680 (\$420 per strain)	\$1,500 (Mono or Quad)	<b>VaxArray:</b> \$1500 per kit includes 2 slides (8 point calibration and 24 sample wells) and all reagents except reference antigen. <b>SRID:</b> per gel costs are \$5.5 for materials, \$9.5 for reagents, \$20 for antisera = \$35/gel (x 12 gels per strain = \$420/strain)
Overall cost estimate for batch of 8 quadrivalent samples analyzed in triplicate	\$6,480 (\$1620 per sample)	\$1,575 (Mono or Quad)	Cost benefit of VaxArray is highest with multivalent samples but comparable for monovalent samples.
Hazardous Waste Disposal Cost	Variable	None	Cost Reduction