

Fact Sheet

SARS-CoV-2 Antigen Variants

**NEW SARS-COV-2
MUTATIONS NOW AVAILABLE!**

Full-length Trimeric Spike Antigen Variants

Delta (Indian), Kappa (Indian), Wild-Type, UK, South African, Brazilian, California & UK/Nigeria

Why is this so important?

- ▶ Canadian Life Science supplies Spike Antigen of the latest and SARS-CoV-2 mutant strains. All variants are full-length antigens, which are active in their native trimeric form and stabilized in LMNG detergent.
- ▶ We are the only supplier, to scale, of the native, wild-type Trimeric Spike Antigen, which has been independently validated with an accuracy of >99% in the large-scale manufacturing of COVID-19 lateral flow antigen tests in the EU.

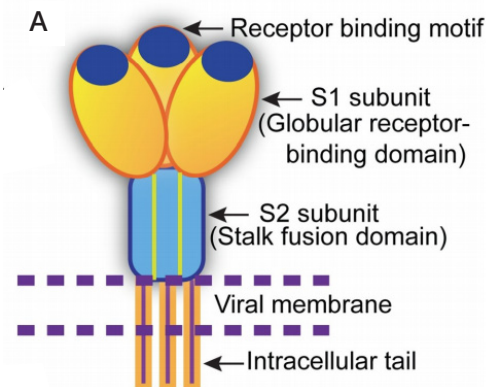


Key Info

SARS-CoV-2 Full-Length Trimeric Spike Antigens available now:

- ✓ **Delta (Indian) Variant (B.1.617.2 Mutations)**
- ✓ **Kappa (Indian) Variant (B.1.617.1 Mutations)**
- ✓ **Double UK & Nigeria Variant (B.1.525 Mutations)**
- ✓ **U.S. (California) Variant (B.1.429 Mutations)**
- ✓ **Brazilian Variant (P.1 Mutations)**
- ✓ **South African Variant (w B.1.351 RBD Mutations)**
- ✓ **UK Variant (B.1.1.7 Mutations)**
- ✓ **Wild-Type**

Host: Expi HEK293 Cells, **Full-length sequence:** (aa 1 – 1273),
Tag: C-terminal, **Furin cleavage site:** "RRAR" mutated to "GSAG",
Buffer: 20 mM Hepes pH 7.5; 150 mM NaCl, 0.001% LMNG,
Size: 1286 amino acids, **Purity:** > 98% by SDS-PAGE gel,
Native Trimeric MW: ~426 kDa



(A) Cartoon depicts key features and the trimeric structure of the SARS-CoV-2 S protein.

Product Name	100 µg Pack	1 mg Pack	10 mg Pack
Delta (Indian) Variant (B.1.617.2 Mutations)	BSV-COV-PR-97	BSV-COV-PR-98	BSV-COV-PR-99
Kappa (Indian) Variant (B.1.617.1 Mutations)	BSV-COV-PR-92	BSV-COV-PR-94	BSV-COV-PR-95
UK Variant (B.1.1.7 Mutations)	BSV-COV-PR-65	BSV-COV-PR-67	BSV-COV-PR-89
South African Variant (w B.1.351 RBD Mutations)	BSV-COV-PR-61	BSV-COV-PR-63	BSV-COV-PR-88
Brazilian Variant (P.1 Mutations)	BSV-COV-PR-69	BSV-COV-PR-71	BSV-COV-PR-90
UK/Nigerian Variant (B.1.525 Mutations)	BSV-COV-PR-79	BSV-COV-PR-86	BSV-COV-PR-87
CAL.20C/California Variant (B.1.429 Mutations)	BSV-COV-PR-82	BSV-COV-PR-84	BSV-COV-PR-85
Wild-Type	BSV-COV-PR-33	BSV-COV-PR-34	BSV-COV-PR-35

Multi-Pack Offer: 6 Variants & Wild-Type
 (Delta, UK, South African, Brazilian,
 UK/Nigerian, Cal.20C, Wild-Type)

**Offer - BUY 7 FOR
THE PRICE OF 5**

1mg each
BSV-COV-PR-MP-1

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Ordering Info:

- ▶ Availability: In stock available to order now!
- ▶ Capacity : 3g per month
- ▶ Shipping: Dry ice | Storage: -80°C. Avoid freeze-thaw cycles.
- ▶ [Click here to order](#) E: info@lifescience.ca T: 1.888.226.2775

Key Variant Differences

Name	 Delta Indian Variant	 Kappa Indian Variant	 UK Variant	 California Variant	 South African Variant	 Brazilian Variant	 UK/Nigeria Variant
Pango	B.1.617.2	B.1.617	B.1.1.7	B.1.429	w B.1.351 RBD Muts	P.1	B.1.525
Alt. Name				CAL.20C	501Y.V2	B.1.1.28.1	
Classification	Variant of Concern	Variant of Interest	Variant of Concern	Variant of Interest	Variant of Concern	Variant of Concern	Variant of Interest
Detected	India: Dec 2020	India: Dec 2020	UK: Feb 2020	US: Jun 2020	South Africa: Oct 2020	Japan/Brazil: Dec 2020	UK/Nigeria: Dec 2020
Trimeric MW	≈426 kDa	≈426 kDa	≈426 kDa	≈426 kDa	≈426 kDa	≈426 kDa	≈426 kDa
DELETIONS							
69-70			69-70				69-70
114			114		114		114
157-158	157-158						
MUTATIONS							
K417N					K417N	K417N	
L452R	L452R	L452R		L452R			
E484K					E484K	E484K	E484K
E484Q	E484Q	E484Q					
N501Y			N501Y		N501Y	N501Y	
D614G	D614G	D614G	D614G		D614G		
P681H/P681R	P681R	P681R	P681H		P681H		
T716I			T716I		T716I		
S982A			S982A		S982A		
UNIQUE							
	T19R, D950N, K986P, V987P	G142D, Q1071H, E154K	A570D	S13I, W152C, D1183Y		L18F, T20N, P26S, D138Y, R190S, H655Y, T1027Y, V1176F	Q52R, Q677H, F888L

Mutations in bold are associated with less sensitivity to antibody neutralisation

Applications

- ELISA Assays / Kits
- Ligand / Antibody Binding Assays
- Biochemical and Biophysical Analyses
- Size, purity and oligomerization state of SARS-CoV-2 spike protein assessed by SDS-PAGE (>98% Purity), Western Blot using a tag-specific antibody
- Purification: Tag-specific Agarose
- Lateral Flow Assays