

Fact Sheet

SARS-CoV-2 Antigen Variants

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

Full-length Trimeric Spike Antigen Variants


Wild-Type, UK, South African, Brazilian, California, UK/Nigeria and Indian Variants

Why is this so important?

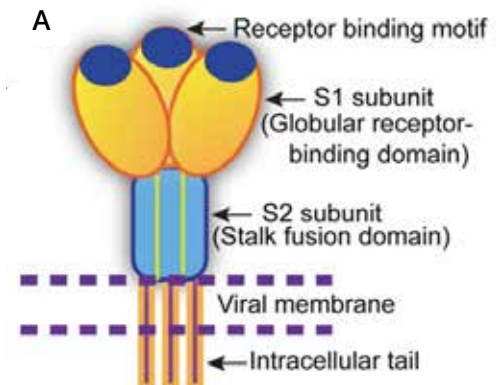
- ▶ Canadian Life Science supplies Spike Antigen of the latest and SARS-CoV-2 mutant strains. All variants are full-length antigens, which are active in their native trimeric form and stabilized in LMNG detergent.
- ▶ We are the only supplier, to scale, of the native, wild-type Trimeric Spike Antigen, 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:

- ✓ **Indian Variant (B.1.617 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
Wild-Type	BSV-COV-PR-33	BSV-COV-PR-34	BSV-COV-PR-35
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
Indian Variant (B.1.617 Mutations)	BSV-COV-PR-92	BSV-COV-PR-94	BSV-COV-PR-95
SARS-CoV-2 full-length Trimeric Spike Antigen MultiPack (6 Variants & Wild 100µg each)	BSV-COV-PR-MP-100		Offer - BUY ALL 7 FOR THE PRICE OF 5
SARS-CoV-2 full-length Trimeric Spike Antigen MultiPack (6 Variants & Wild 1mg each)	BSV-COV-PR-MP-1		Offer - BUY ALL 7 FOR THE PRICE OF 5

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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

	 UK Variant	 California Variant	 South African Variant	 Brazilian Variant	 UK/Nigeria Variant	 Indian Variant
Name	B.1.1.7	B.1.429	w B.1.351 RBD Muts	P.1	B.1.525	B.1.617
Alt. Name		CAL.20C	501Y.V2	B.1.1.28.1		
Classification	Variant of Concern	Variant of Concern	Variant of Concern	Variant of Concern	Variant of Concern	Variant of Concern
Detected	UK: Feb 2020	US: Jun 2020	South Africa: Oct 2020	Japan/Brazil: Dec 2020	UK/Nigeria: Dec 2020	India: Feb 2021
Trimeric MW	≈426 kDa	≈426 kDa	≈426 kDa	≈426 kDa	≈426 kDa	≈426 kDa
DELETIONS						
69-70	69-70				69-70	
114	114		114		114	
MUTATIONS						
K417N			K417N	K417N		
L452R		L452R				L452R
E484K			E484K	E484K	E484K	
E484Q						E484Q
N501Y	N501Y		N501Y	N501Y		
D614G	D614G		D614G			D614G
P681H/P681R	P681H		P681H			P681R
T716I	T716I		T716I			
S982A	S982A		S982A			
UNIQUE						
	A570D	S13I, W152C, D1183Y		L18F, T20N, P26S, D138Y, R190S, H655Y, T1027Y, V1176F	Q52R, Q677H, F888L	G142D, Q1071H, E154K

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

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