SARS-CoV-2 (Spike Protein) Delta/B.1.617.2 Mutation Peptide Pool

SARS-CoV-2 (spike protein) Delta/B.1.617.2 variant mutation peptide pool for immune cell activation

Catalog #100-1380 ~25 µg (15 nmol)/peptide

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Product Description

SARS-CoV-2 (Spike Protein) Delta/B.1.617.2 Mutation Peptide Pool is a lyophilized mixture of 27 peptides from the spike glycoprotein of SARS-CoV-2 Delta variant (B.1.617.2). These peptides selectively cover the mutated regions in the spike protein of SARS-CoV-2 Delta variant compared to the wild-type regions. The virus attaches to the cell membrane of the host through the interaction between spike protein and angiotensin-converting enzyme 2 (ACE2) receptor, and the spike protein plays a critical role in viral entry (Hoffmann et al.; Walls et al.). One unit of this product (i.e. ~25 µg/peptide) is sufficient for stimulating 2.5 x 10^8 cells.

APPLICATIONS

- Antigen-specific T cell stimulation
- Cellular immune response
- Immune monitoring
- T cell assays
- T cell expansion

Product Information

Number of Peptides:	27
Source:	SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2), Delta (B.1.617.2) variant
Accession Number:	P0DTC2
Protein Name:	S glycoprotein; Spike glycoprotein; Surface glycoprotein
Gene Name:	S
Purity:	Average 70%
Formulation:	Lyophilized as trifluoroacetate salts

Preparation and Storage

Storage:	Store at -20°C.
Stability:	Stable as supplied until expiry date (EXP) on label.
Preparation:	Warm to room temperature (15 - 25°C) before reconstitution. Add pure dimethyl sulfoxide (DMSO; ~40 µL) and dilute with water to the desired concentration. Final concentration of DMSO must be below 1% (v/v) to avoid toxicity in the biological system. If not used immediately, aliquot and store at -20°C. Protect from light. Avoid repeated freeze-thaw cycles.

Peptide Sequences

NO.	SEQUENCE	LENGTH
1	LVLLPLVSSQCVNLR	15
2	PLVSSQCVNLRTRTQ	15
3	SQCVNLRTRTQLPPA	15
4	NLRTRTQLPPAYTNS	15
5	YHKNNKSWMESEVYS	15
6	NKSWMESEVYSSANN	15
7	MESEVYSSANNCTFE	15
8	VYSSANNCTFEYVSQ	15
9	LDSKVGGNYNYRYRL	15
10	VGGNYNYRYRLFRKS	15
11	YNYRYRLFRKSNLKP	15
12	ERDISTEIYQAGSKP	15
13	STEIYQAGSKPCNGV	15
14	YQAGSKPCNGVEGFN	15

NO.	SEQUENCE	LENGTH
15	SKPCNGVEGFNCYFP	15
16	GTNTSNQVAVLYQGV	15
17	SNQVAVLYQGVNCTE	15
18	AVLYQGVNCTEVPVA	15
19	QGVNCTEVPVAIHAD	15
20	GICASYQTQTNSRRR	15
21	SYQTQTNSRRRARSV	15
22	QTNSRRRARSVASQS	15
23	RRRARSVASQSIIAY	15
24	SLSSTASALGKLQNV	15
25	TASALGKLQNVVNQN	15
26	LGKLQNVVNQNAQAL	15
27	QNVVNQNAQALNTLV	15

Related Products

For a complete list of peptide pools, as well as related products available from STEMCELL Technologies, visit www.stemcell.com, or contact us at techsupport@stemcell.com.

References

Hoffmann M et al. (2020) SARS-CoV-2 cell entry depends on ACE2 and TMPRSS2 and is blocked by a clinically proven protease inhibitor. Cell 181(2): 271–80.

Walls AC et al. (2020) Structure, function, and antigenicity of the SARS-CoV-2 spike glycoprotein. Cell 181(2): 281–92.