

SARS-CoV-2 (Spike Protein) Omicron/B.1.1.529 WT Reference Peptide Pool

**SARS-CoV-2 (spike protein) Omicron/B.1.1.529 variant wild-type
reference peptide pool for immune cell activation**

Catalog #100-1383

~25 µg (15 nmol)/peptide



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Product Description

SARS-CoV-2 (Spike Protein) Omicron/B.1.1.529 WT Reference Peptide Pool is a lyophilized mixture of 82 peptides from the spike glycoprotein of SARS-CoV-2 wild-type. The pool represents the wild-type peptides of the mutations in the spike protein of SARS-CoV-2 Omicron variant (B.1.1.529) and is recommended as a reference. 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 2.5×10^8 cells.

APPLICATIONS

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

Product Information

Number of Peptides:	82
Source:	SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2), wild-type
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	NO.	SEQUENCE	LENGTH
1	DLFLPFFSNVTFHA	15	42	VIAWNSNNLDSKVGG	15
2	PFFSNVTFHAIHVS	15	43	NSNNLDSKVGGNYNY	15
3	NVTFHAIHVS GTNG	15	44	LDSKVGGNYNYLRL	15
4	FHAIHVS GTNGTKRF	15	45	VGGNYNYLRLFRKS	15
5	NPVLPFNDGVYFAST	15	46	ERDISTEIYQAGSTP	15
6	PFNDGVYFASTEKSN	15	47	STEIYQAGSTPCNGV	15
7	GVYFASTEKSNIRG	15	48	YQAGSTPCNGVEGFN	15
8	ASTEKSNIRGWIFG	15	49	STPCNGVEGFNCYFP	15
9	KVCEFQFCNDPFLGV	15	50	NGVEGFNCYFPLQSY	15
10	FQFCNDPFLGVYYHK	15	51	GFNCYFPLQSYGFQP	15
11	NDPFLGVYYHKNNKS	15	52	TASALGKLQDVVNQN	15
12	LGVYYHKNNKSWMES	15	53	LGKLQDVVNQNAQAL	15
13	IDGYFKIYSKHTPIN	15	54	QDVVNQNAQALNTLV	15
14	FKIYSKHTPINLVRD	15	55	NQNAQALNTLVKQLS	15
15	SKHTPINLVRDLPQG	15	56	QALNTLVKQLSSNFG	15
16	PINLVRDLPQGFSAL	15	57	TLVKQLSSNFGAISS	15
17	SIVRFPNITNLCPFG	15	58	QLSSNFGAISSVLND	15
18	FPNITNLCPFGEVFN	15	59	NFGAISSVLNDILSR	15
19	TNLCPFGEVFNATRF	15	60	ISSVLNDILSRDKV	15
20	PFGEVFNATRFASVY	15	61	LNDILSRDKVEAEV	15
21	QTNSPRRARSVASQS	15	62	LSRLDKVEAEVQIDR	15
22	PRRARSVASQSIAY	15	63	YFPLQSYGFQPTNGV	15
23	LLQYGSFCTQLNRAL	15	64	QSYGFQPTNGVGYP	15
24	GSFCTQLNRALTGIA	15	65	FQPTNGVGYPYRVV	15
25	TQLNRALTGIAVEQD	15	66	NGVGYPYRVVLSF	15
26	VKQIYKTPPIKDFGG	15	67	YQPYRVVLSFELLH	15
27	YKTPPIKDFGGFNFS	15	68	LVKNKCVNFNFGLT	15
28	PIKDFGGFNFSQILP	15	69	KCVNFNFNFGLTGTGV	15
29	AARDLICAQKFNFGLT	15	70	FNFNGLTGTGVLTES	15
30	LICAQKFNFGLTVLPP	15	71	GLTGTGVLTESNKKF	15

NO.	SEQUENCE	LENGTH	NO.	SEQUENCE	LENGTH
31	QKFNGLTVPPLLTD	15	72	GTNTSNQVAVLYQDV	15
32	RISNCVADYSVLVNS	15	73	SNQVAVLYQDVNCTE	15
33	CVADYSVLVNSASF	15	74	AVLYQDVNCTEVPVA	15
34	YSVLVNSASFSTFKC	15	75	QDVNCTEVPVAIHAD	15
35	YNSASFSTFKCYGVS	15	76	NVFQTRAGCLIGAEH	15
36	SFSTFKCYGVSPTKL	15	77	TRAGCLIGAEHVNNS	15
37	DEVQRQIAPGQTGKIA	15	78	CLIGAEHVNNSYECD	15
38	QIAPGQTGKIADYNY	15	79	AEHVNNSYECDIPIG	15
39	GQTGKIADYNYKLPD	15	80	PIGAGICASYQTQTN	15
40	KIADYNYKLPPDFTG	15	81	GICASYQTQTNPRR	15
41	FTGCVIAWNSNNLDS	15	82	SYQTQTNPRRARSV	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.

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