

SARS-CoV-2 (Spike Protein) Peptide Pool

SARS-CoV-2 (spike protein) peptide pool for immune cell activation; contains two subpools that span the full-length spike protein

Catalog #100-0676

2 Vials



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Product Description

The SARS-CoV-2 (Spike Protein) Peptide Pool is provided as two lyophilized mixtures (subpools) from the SARS-CoV-2 spike protein. Each subpool contains 158 peptides, for a total of 316 peptides. 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.; Hwang et al.; Walls et al.). The subpools consist of 15-mer peptides with 11-amino-acid overlaps that cover amino acids 1 - 1273 on the spike protein.

Component Storage and Stability

The following components are sold as part of the SARS-CoV-2 (Spike Protein) Peptide Pool (Catalog #100-0676) and are not available for individual sale.

COMPONENT NAME	COMPONENT #	SIZE	STORAGE	SHELF LIFE
SARS-CoV-2 (Spike Protein) Peptide Pool 1	300-0280	~25 µg/peptide	Store at -20°C.	Stable as supplied until expiry date (EXP) on box label.
SARS-CoV-2 (Spike Protein) Peptide Pool 2	300-0281	~25 µg/peptide	Store at -20°C.	Stable as supplied until expiry date (EXP) on box label.

Product Information

Number of Peptides: 158 per vial (316 total)

Source: SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2)

Protein ID: P0DTC2 (Swiss-Prot)

Protein Name: Spike glycoprotein; S1 protein

Protein Sequence: MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVVYPDKVFRSSVLHSTQDLFLPFFSNVTFWHAIHVSGTNGTKR FDNPVLPFNDGVYFASTKSNIIIRGWIFGTTLDSKTQSLIVNNATNVVIKVFCEFCNDPFLGVYHKNKSWMESE FRVYSSANNCTFEYVSQPFLMDLEGKQGNFKNLREFVFNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVDLPIGINIT RFQTLALHRSYLT PGDSSSGWTAGAAAYVGYLQPRFTLLKYNENGTITDAVDCALDPLSEKCTLKSTVEKGIYQ TSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNVCADYSVLYNSASFSTFKCYGVSPTKLNDLCFT NYYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKVGNGNYNYLRYLFRKSNLKPFRDIST EIYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGL TGTGVLTESNKKFLPFQFGRDIADTTDAVRDPQTLIILDITPCSFGGVSVITPGTNTSNQVAVLYQDVNCTEVPVAIH ADQLTPTWRVYSTGNSVFQTRAGCLIGAEHVNNSEYCDPIGAGICASYQTQTNSPRRARSVASQSIAYTMSLGAEN SVAYSNNSIAIPTNFTISVTTEILPVSMTKTSVDCTMYICGDSTECNSLLLQYGSFCTQLNRALTGIAVEQDKNTQEVFA QVKQIYKTPPIKDFGGFNFSQILPDPSPKPSKRSFIEDLLFNKVTLADAGFIKQYGDCLGDIAARDLCAQKFNGLTVLP PLLTDEMIAQYTSALLAGTITSGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKLIANQFNSAIGKIQDSLSS TASALGKLQDVVNQNAQALNLTLVKQLSSNFGAISSVNDILSRDLKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIR ASANLAATKMSECVLGGSKRVDFCGKGYHLSFPPQSAPHGVVFLHVTVYPAQEKNFTTAPAICHDKGAHFREGV FVSNGTWVFTQRNFYEPQIITDNTFVSGNCDVWIGVNNNTVYDPLQPELDSFKEELDKYFKNHTSPDVLDLGDISGIN ASVUNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYIWLGFIAGLIAVMVTIMLCCMTSCCSCLKGCCSCG SCCKFDEDDSEPVLLKGVKLYHT

Gene Name: S

Purity: Average 70%

Formulation: Lyophilized as trifluoroacetate salts

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. **Do not combine the two subpools.** 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. After thawing aliquots, do not re-freeze.

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.e8.

Hwang SS et al. (2020) mRNA destabilization by BTG1 and BTG2 maintains T cell quiescence. *Science* 367(6483): 1255–60.

Walls AC et al. (2020) Structure, function, and antigenicity of the SARS-CoV-2 spike glycoprotein. *Cell* 181(2): 281–92.e6.

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