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# 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 | ~25 µg (15 nmol)/peptide

## Product Description

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.; 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. One unit of this product (i.e. ~25 µg/peptide) is sufficient for stimulating 2.5 x 10^8 cells.

## Product Information

**Amino Acid Sequence**:

MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFSNVTWFHAIHVSGT
NGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLLIVNNATNVVIKVCEFQFCNDPFLGVYYH
KNNKSWMESEFRVYSSANNCTFEYVSQPFLMDLEGKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLP
QGFSALEPLVDLPIGINITRFQTLLALHRSYLTPGDSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDC
ALDPLSETKCTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADY
SVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVRQIAPGQTGKIADYNYKLPDDFTGCVIAWNS
NNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRV
VVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQTL
EILDITPCSFGGVSVITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTGSNVFQTRAGCLIGAEHVNNSY
ECDIPIGAGICASYQTQTNSPRRARSVASQSIIAYTMSLGAENSVAYSNNSIAIPTNFTISVTTEILPVSMTKTSV
DCTMYICGDSTECSNLLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTPPIKDFGGFNFSQILPDP
SKPSKRSFIEDLLFNKVTLADAGFIKQYGDCLGDIAARDLICAQKFNGLTVLPPLLTDEMIAQYTSALLAGTITS
GWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKLIANQFNSAIGKIQDSLSSTASALGKLQDVVNQN
AQALNTLVKQLSSNFGAISSVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMS
ECVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTYVPAQEKNFTTAPAICHDGKAHFPREGVFVSNGT
HWFVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNTVYDPLQPELDSFKEELDKYFKNHTSPDVDLGDISGI
NASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLK
GCCSCGSCCKFDEDDSEPVLKGVKLHYT

**Product Formulation**: Lyophilized as trifluoroacetate salts

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

**Number of Peptides**: 158 per vial (316 total)

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|---|---|
| **Protein ID**: | P0DTC2 |
| **Protein Name**: | S glycoprotein, Spike glycoprotein, Surface glycoprotein |
| **Gene Name**: | S |
| **Purity**: | Average 70% |

## Preparation and Storage

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|---|---|
| **Stability and Storage**: | Store at -20°C. Stable as supplied until expiry date (EXP) on label.<br>NOTE: SARS-CoV-2 (Spike Protein) Peptide Pool 1 (Catalog #300-0280) and SARS-CoV-2 (Spike Protein) Peptide Pool 2 (Catalog #300-0281) are sold as part of the SARS-CoV-2 (Spike Protein) Peptide Pool (Catalog #100-0676) and are not available for individual sale. |
| **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. **Combination of the two subpools after reconstitution is not recommended.** 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. |

## Related Products

For a complete list of cytokines or peptide pools, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines 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.

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