



PRODUCT DATASHEET

Catalog No:	LT5587
Pack Size	1 mg
Product Name:	2019 Coronavirus SARS-CoV-2 surface Glycoprotein
Description:	<p>Receptor-binding motif (RBM) of 2019 Coronavirus SARS-CoV-2 surface glycoprotein. This receptor-binding domain (RBD) a critical determinant of virus-receptor interaction and thus of viral host range and tropism. The RBD also includes important viral-neutralizing epitopes (21–23), and it may be sufficient to raise a protective antibody response in inoculated animals. A total of nine cysteine residues are found in the RBD, six of which forming three pairs of disulfide bonds. Among these three pairs, two are in the core (Cys336-Cys361 and Cys379-Cys432) to help stabilize the beta sheet structure while the remaining one (Cys480-Cys488) connects loops in the distal end of the RBM.</p> <p>Studies showed that the sequence of 2019-nCoV coronavirus RBD, including its receptor -binding motif (RBM) that directly contacts ACE2 and uses ACE2 as its receptor with much higher affinity (10-20 times higher!) than SARS.</p>
Species:	2019-nCoV, SARS-CoV-2
Peptide Sequence:	NH2- VIAWNSNLD SKVGGNYNYL YRLFRRKSNLK PFERDISTEI YQAGSTPCNG VEGFNCYFPL QSYGFQPTNG VGYQ -CONH2
Molecular Weight:	8410.21 g/mol
Modifications:	Disulphide Bridge: Cys480-Cys488
Purity:	>97% as determined by HPLC.

<p>Three Letter Sequence:</p>	<p>NH2- Val - Ile - Ala - Trp - Asn - Ser - Asn - Asn - Leu - Asp - Ser - Lys - Val - Gly - Gly - Asn - Tyr - Asn - Tyr - Leu - Tyr - Arg - Leu - Phe - Arg - Lys - Ser - Asn - Leu - Lys - Pro - Phe - Glu - Arg - Asp - Ile - Ser - Thr - Glu - Ile - Tyr - Gln - Ala - Gly - Ser - Thr - Pro - Cys - Asn - Gly - Val - Glu - Gly - Phe - Asn - Cys - Tyr - Phe - Pro - Leu - Gln - Ser - Tyr - Gly - Phe - Gln - Pro - Thr - Asn - Gly - Val - Gly - Tyr - Gln -CONH2</p>
<p>Background:</p>	<p>Researchers from around the world have asked for peptides to develop vaccines targeting the novel coronavirus (2019-nCoV) or SARS-CoV-2.</p> <p>This receptor-binding domain (RBD) a critical determinant of virus-receptor interaction and thus of viral host range and tropism. The RBD also includes important viral-neutralizing epitopes (21-23), and it may be sufficient to raise a protective antibody response in inoculated animals.</p> <p>A total of nine cysteine residues are found in the RBD, six of which forming three pairs of disulfide bonds. Among these three pairs, two are in the core (Cys336-Cys361 and Cys379-Cys432) to help stabilize the beta sheet structure while the remaining one (Cys480-Cys488) connects loops in the distal end of the RBM.</p> <p>Studies showed that the sequence of 2019-nCoV coronavirus RBD, including its receptor -binding motif (RBM) that directly contacts ACE2 and uses ACE2 as its receptor with much higher affinity (10-20 times higher!) than SARS.</p>

FOR RESEARCH LABORATORY TEST USE ONLY!