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SARS-CoV-2 ORF1ab Peptide (NLAWPLIVTALRANS)

Coronavirus Peptide
Catalog # VGP1580

Specification

SARS-CoV-2 ORF1ab Peptide (NLAWPLIVTALRANS) - Product Information

Sequence	**NLAWPLIVTALRANS**
Purity	
>90% (HPLC-MS)	
Application	**Cellular immune response, T-cell expansion, Antigen specific T-cell stimulation, Immune monitoring, T-cell assays**
Primary Accession	P0DTD1
Other Accession	R1AB_SARS2

SARS-CoV-2 ORF1ab Peptide (NLAWPLIVTALRANS) - Additional Information

Gene ID	**43740578**

Other Names
Replicase polyprotein 1ab, pp1ab (ORF1ab polyprotein) [Cleaved into: Host translation inhibitor nsp1 (Leader protein) (Non-structural protein 1, nsp1); Non-structural protein 2, nsp2 (p65 homolog); Non-structural protein 3, nsp3, EC 3.4.19.12, EC 3.4.22.- (PL2-PRO) (Papain-like proteinase, PL-PRO); Non-structural protein 4, nsp4; 3C-like proteinase, 3CL-PRO, 3CLp, EC 3.4.22.69 (Main protease, Mpro) (Non-structural protein 5, nsp5) (SARS coronavirus main proteinase); Non-structural protein 6, nsp6; Non-structural protein 7, nsp7; Non-structural protein 8, nsp8; Non-structural protein 9, nsp9; Non-structural protein 10, nsp10 (Growth factor-like peptide, GFL); RNA-directed RNA polymerase, Pol, RdRp, EC 2.7.7.48 (Non-structural protein 12, nsp12); Helicase, Hel, EC 3.6.4.12, EC 3.6.4.13 (Non-structural protein 13, nsp13); Proofreading exoribonuclease, ExoN, EC 3.1.13.- (Guanine-N7 methyltransferase) (Non-structural protein 14, nsp14); Uridylate-specific endoribonuclease, EC 3.1.-.- (NendoU) (Non-structural protein 15, nsp15); 2'-O-methyltransferase, EC 2.1.1.- (Non-structural protein 16, nsp16)]

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SARS-CoV-2 ORF1ab Peptide (NLAWPLIVTALRANS) - Images

SARS-CoV-2 ORF1ab Peptide (NLAWPLIVTALRANS) - Background

SARS-CoV-2 is part of the Coronaviridae family, whose members are named after their crown-like appearance under the electron microscope caused by the surface glycoproteins that decorate the

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virus. Coronaviruses have a large (30+ kb) single-stranded positivesense RNA genome encoding for several open reading frames. The open reading frame ORF1ab is the source for replicase, replicase/transcriptase, and polymerase polyproteins. ORF1ab is translated into ORF1a and ORF1b polyproteins in the host cell. Virus-encoded proteinases including 3C like protease cleaveORF1 into multiple nonstructural proteins (nsps). ORF1a yields protein products nsp 1 to nsp 10, which play at role in response to cellular stresses and maintaining integrity of the cellular components, along with crucial roles in viral replication. ORF1b encodes viral RNA-dependent RNA polymerase, helicase, exonuclease, auridylate specific endonuclease, and methyl transferase . THe significant contribution of these proteins to viral pathogenesis makes them promising targets for anti-viral therapeutics and vaccine development.