

## SARS-CoV-2 NSP7-NSP8 Heterodimer Protein (His)

<b>Cat. No.:</b>	HY-P77816
<b>Synonyms:</b>	SP7&NSP8; nsp7&nsp8
<b>Species:</b>	Virus
<b>Source:</b>	E. coli
<b>Accession:</b>	YP_009725303 (S1-Q83)&YP_009725304 (A1-Q198)
<b>Gene ID:</b>	43740578&43740578
<b>Molecular Weight:</b>	Approximately 32.8 kDa

### PROPERTIES

<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.22 µm filtered solution of 20 mM Tris, 500 mM NaCl, 100 mM Arginine, pH 8.2. Normally 5% trehalose is added as protectant before lyophilization.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A.
<b>Storage &amp; Stability</b>	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Shipping with dry ice.

### DESCRIPTION

<b>Background</b>	<p>The ORF1ab gene is a specifically expressed gene of SARS-CoV-2 and can be quickly and sensitively detected to indirectly indicate the level of SARS-CoV-2. In the evolutionary dynamics of the novel COVID-19 pandemic, SARS-CoV-2 early evolved into at least three phylogenetic groups characterized by positive selection of specific residues of the accessory proteins ORF3a and ORF8. The five known human betacoronaviruses all have four major structural proteins (E, M, N, and S) and 16 nonstructural proteins (ORF1ab) co-encoded by ORF1a and ORF1b, which are involved in the pathogenicity of the virus. and infectivity. Three of these genes (E, S, and ORF1ab genes) are characterized by strong positive selection in human betacoronaviruses, affecting codons located in functionally important protein domains. ORF1ab protein plays an important role in inhibiting host translation machinery, viral replication and transcription, and suppressing host immune responses. An electrochemiluminescence (ECL) biosensor based on dual-probe hybridization has been developed, using the detection model of "magnetic capture probe-targeted nucleic acid-Ru(bpy)<sub>3</sub><sup>2+</sup> labeled signal probe" to detect the ORF1ab target gene. detection.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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