



## PRODUCT DATASHEET

<b>Catalog No:</b>	BSV-COV-PR-050/ BSV-COV-PR-051
<b>Product Name:</b>	SARS Coronavirus Envelope Protein ( <i>E. coli</i> )
<b>Description:</b>	Recombinant protein manufactured in <i>E. coli</i> . Contains the N-terminus Envelope protein, 1-76 amino acids immunodominant regions. Immunoreactive with sera from SARS-infected individuals.
<b>Species:</b>	SARS-CoV-1
<b>SARS-CoV-1 amino acids:</b>	Contains N-terminus of the Envelope protein, 1-76 amino acid immunodominant regions.
<b>Tag:</b>	6xHis-tag
<b>Host:</b>	<i>E.coli</i>
<b>Purity:</b>	>90 % by SDS-PAGE
<b>Buffer:</b>	1 x PBS buffer
<b>Concentration:</b>	1.0mg/ml
<b>Predicted Molecular Mass:</b>	SARS Coronavirus Envelope Protein consists of amino acids 1 – 76 of the N-terminus Envelope protein and predicts a molecular mass of ~13 kDa.
<b>Formulation:</b>	Recombinant protein stored in 1 x PBS buffer.
<b>Endotoxin:</b>	Endotoxin level is < 0.1 ng/μg of protein (<1 EU/μg)
<b>Shipping, Storage and Stability:</b>	Store product at –80°C. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
<b>Background:</b>	The coronaviral genome encodes four major structural proteins: the spike (S) protein, nucleocapsid (N) protein, membrane (M) protein, and the envelope (E) protein, all of which are required to produce a structurally complete viral particle [29, 37, 38]. The E protein is the smallest of the major structural proteins. During the replication cycle, E is abundantly expressed inside the infected cell, but only a small portion is incorporated into the virion envelope. E participates in viral assembly, release of virions and pathogenesis of the virus. The majority of the protein is localised at the site of intracellular trafficking, the ER, Golgi, and ERGIC, where it participates in CoV assembly and budding. Recombinant CoVs lacking E exhibit significantly reduced viral titres, crippled viral maturation, or yield propagation incompetent progeny, demonstrating the importance of E in virus production and maturation.

**FOR RESEARCH LABORATORY TEST USE ONLY!**