Active Recombinant Human betacoronavirus S1, His-tagged

Cat. No. S1-328H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the extracellular domain of spike protein (Human betacoronavirus 2c EMC/2012)(AFS88936.1) (Met1-Trp1297) was fused with a polyhistidine tag at the C-terminus.
Species	Human
Source	Insect Cells
ProteinLength	1-1297 a.a.
Description	The spike protein is one of the four major structural proteins of the coronavirus. Coronavirus entry is mediated by the viral spike protein. The 180-kDa oligomeric spike protein of the murine coronavirus mouse hepatitis virus strain A59 is posttranslationally cleaved into an S1 receptor binding unit and an S2 membrane fusion unit. Both biochemical and functional data show that the coronavirus spike protein is a class I viral fusion protein.HCoV-EMC is a novel coronavirus isolated from a Saudi patient presenting with pneumonia and renal failure in June 2012. Genome sequencing showed that this virus belongs to the group C species of the genus betacoronavirus and phylogenetically related to the bat coronaviruses HKU4 and HKU5 previously found in lesser bamboo bat and Japanese Pipistrelle bat of Hong Kong respectively. HCoV-EMC has been identified as a highly lethal virus that could be passed from animals to humans very easily. The virus, like other coronaviridae, has the potential to infect bats and pigs in addition to humans. HCoV-EMC is related to the causative agent of SARS (severe acute respiratory syndrome), SARS

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	coronavirus. and also may be even more infectious as it does not use the human receptor protein ACE2. The receptor used by HCov-EMC has not been identified. Symptoms of infection include kidney failure and severe pneumonia. The animal source has still not been identified but may circulate among populations of bats.
Predicted N Terminal	Tyr 18
Form	Lyophilized from sterile 20mM Tris, 500mM Nacl, pH 7.4, 10% glycerol. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.
Bio-activity	Measured by its binding ability in a functional ELISA.
Molecular Mass	The recombinant extracellular domain of spike protein (Human betacoronavirus 2c EMC/2012) comprises 1289 amino acids and has a predicted molecular mass of 142.2 kDa. It migrates as an approximately 157 kDa band in SDS-PAGE under reducing conditions.
Endotoxin	< 1.0 eu per μg of the protein as determined by the lal
Purity	>85 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Storage	Store it under sterile conditions at -70℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

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