



MERS-CoV Spike protein (aa 1-1297) [His] (DAG-H10300)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Nature	Recombinant
Expression System	Insect cells
Species	MERS-CoV
Purity	> 85 % as determined by SDS-PAGE
Conjugate	His
Applications	<p>Measured by its binding ability in a functional ELISA.</p> <ol style="list-style-type: none"> 1. Immobilized Spike (HCoV-EMC/2012) (ECD, aa 1-1297) at 10 µg/ml (100 µl/well) can bind biotinylated human ACE2. The EC50 of biotinylated human ACE2 is 0.9-1.4 µg/ml. 2. Immobilized Spike (HCoV-EMC/2012) (ECD, aa 1-1297) at 10 µg/ml (100 µl/well) can bind biotinylated DPP4 . The EC50 of of biotinylated DPP4 is 0.02-0.04 µg/ml. 3. Immobilized Spike (HCoV-EMC/2012) (ECD, aa 1-1297) at 10 µg/ml (100 µl/well) can bind biotinylated Fc-DPP4 . The EC50 of biotinylated Fc-DPP4 is 0.01-0.02 µg/ml.
Predicted N terminal	Tyr 18
Stability	Samples are stable for up to twelve months from date of receipt at -70°C
Endotoxin	<1.0 EU per µg of the protein as determined by the LAL method
Procedure	None
Format	Lyophilized from sterile 20mM Tris, 500mM Nacl, pH 7.4, 10% glycerol
Size	20µg; 50µg
Preservative	None
Storage	Store it under sterile conditions at -70 °C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

BACKGROUND

Introduction

The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell: they are essential for both host specificity and viral infectivity. The term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. The SARS-CoV spike (S) protein is composed of two subunits; the S1 subunit contains a receptor-binding domain that engages with the host cell receptor angiotensin-converting enzyme 2 and the S2 subunit mediates fusion between the viral and host cell membranes. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity, during infection with SARS-CoV.

Keywords

Coronavirus; Corona; Coronaviridae; Coronavirinae
