MERS-CoV Spike/S1 Protein (S1 Subunit, aa 1-725, His Tag)

Catalog_no： AD-PD400045

Category： 冠状病毒产品

Size： 100μg

Specificity： MERS-CoV

Source： Baculovirus-Insect Cells

Storage_stability： Samples are stable for up to twelve months from date of receipt at -20℃ to -80℃ Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Molecular Weight： The recombinant spike protein S1 Subunit MERS-CoV comprises 719 amino acids and has a predicted molecular mass of 79.9 kDa. It migrates as an approximately 94 kDa band in SDS-PAGE under reducing conditions.

Background： The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2; DPP4, dipeptidyl peptidase-4; APN, aminopeptidase N; CEACAM, carcinoembryonic antigen-related cell adhesion molecule 1; Sia, sialic acid; O-ac Sia, O-acetylated sialic acid. The spike is 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. It's been reported that 2019-nCoV can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion.The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion; Defines the range of the hosts and specificity of the virus; Main component to bind with the neutralizing antibody; Key target for vaccine design; Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate.

缓冲液： Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.4. Please contact us for any concerns or special requirements.Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.Please refer to t

运输及保存条件： In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise

classification_1： coronavirus s1 Protein, MERS-CoV; coronavirus s2 Protein, MERS-CoV; coronavirus spike Protein, MERS-CoV; cov spike Protein, MERS-CoV; ncov RBD Protein, MERS-CoV; ncov s1 Protein, MERS-CoV; ncov s2 Protein, MERS-CoV; ncov spike Protein, MERS-CoV; RBD

purity： > 95 % as determined by SDS-PAGE

reference： 1.Shen S, et al. (2007) Expression, glycosylation, and modification of the spike (S) glycoprotein of SARS CoV. Methods Mol Biol. 379: 127-35. 2.Du L, et al. (2009) The spike protein of SARS-CoV--a target for vaccine and therapeutic development. Nat R

内毒素： < 1.0 EU per μg of the protein as determined by the LAL method

生物活性： 1. Measured by its binding ability in a functional ELISA. Immobilized Spike Protein S1 (aa 1-725) (Cat: 40069-V08B1) at 10 μg/ml (100 μl/well) can bind biotinylated human DPP4 (Cat: 10688-HNCH).The EC50 of of biotinylated DPP4 (Cat: 10688-HNCH) is 0.