Influenza B (B/Austria/1359417/2021) Hemagglutinin / HA Protein (ECD, His Tag)

Catalog Number: 40862-V08B

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

HA

Protein Construction:

A DNA sequence encoding the Influenza B (B/Austria/1359417/2021) Hemagglutinin (EPI1868375) (Met1-Thr545) was expressed with a polyhistidine tag at the C-terminus.

Source: Influenza B

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin:

< 1.0 EU per μg protein as determined by the LAL method.

Predicted N terminal: Asp 16

Molecular Mass:

The recombinant Influenza B (B/Austria/1359417/2021) Hemagglutinin consists of 541 amino acids and predicts a molecular mass of 58.88 kDa. It migrates as an approximately 72.92 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 150mM NaCl, 5% glycerol, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

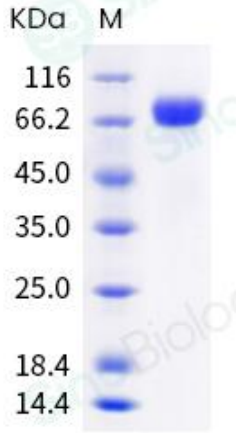
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The influenza viral Hemagglutinin (HA) protein is a homotrimer with a receptor binding pocket on the globular head of each monomer.HA has at least 18 different antigens. These subtypes are named H1 through H18.HA has two functions. Firstly, it allows the recognition of target vertebrate cells, accomplished through the binding to these cells' sialic acid-containing receptors. Secondly, once bound it facilitates the entry of the viral genome into the target cells by causing the fusion of the host endosomal membrane with the viral membrane. The influenza virus Hemagglutinin (HA) protein is translated in cells as a single protein, HA, or hemagglutinin precursor protein. For viral activation, hemagglutinin precursor protein (HA) must be cleaved by a trypsin-like serine endoprotease at a specific site, normally coded for by a single basic amino acid (usually arginine) between the HA1 and HA2 domains of the protein. After cleavage, the two disulfide-bonded protein domains produce the mature form of the protein subunits as a prerequisite for the conformational change necessary for fusion and hence viral infectivity.

References

1.White JM, Hoffman LR, Arevalo JH, et al. Attachment and entry of influenza virus into host cells. Pivotal roles of hemagglutinin. In Chiu W, Burnett RM, Garcea RL. Structural Biology of Viruses.1997 2.Suzuki Y.Sialobiology of influenza: molecular mechanism of host range variation of influenza viruses. Biol. Pharm. Bull. 2005. 3.Senne DA, Panigrahy B, Kawaoka Y, et al. Survey of the hemagglutinin (HA) cleavage site sequence of H5 and H7 avian influenza viruses: amino acid sequence at the HA cleavage site as a marker of pathogenicity potential. Avian Dis. 1996