Influenza A H1N1 (A/Hawaii/19/2007)
Hemagglutinin / HA1 Protein (His Tag)

Catalog Number: 40508-V08H

General Information

Gene Name Synonym:
HA

Protein Construction:
A DNA sequence encoding the Influenza A virus (A/Hawaii/19/2007(H1N1))
hemagglutinin (ACA3723.1) (Met1-Arg343), termed as HA1, was
expressed with a polyhistidine tag at the C-terminus.

Source: H1N1

Expression Host: HEK293 Cells

QC Testing

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

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

Stability:
Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Asp 18

Molecular Mass:
The recombinant HA1 subunit of the Influenza A virus
(A/Hawaii/19/2007(H1N1)) hemagglutinin consists of 337 amino acids and
predicts a molecular mass of 37.8 kDa.

Formulation:
Lyophilized from sterile PBS,pH 7.4.

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

Storage:
Store it under sterile conditions at -20°C to -80°C 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 homo trimer 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 host endosomal membrane
with the viral membrane.The influenza virus Hemagglutinin (HA) protein is
translated in cells as a single protein, HA0, or hemagglutinin precursor
protein. For viral activation, hemagglutinin precursor protein (HA0) 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

of influenza virus into host cells. Pivotal roles of hemagglutinin". In Chiu W,
Burnett RM, Garcea RL. Structural Biology of Viruses. 2.Suzuki Y (March
2005). "Sialobiology of influenza: molecular mechanism of host range
(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. 40 (2): 425–37

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