Hepatitis C virus (HCV-1a) NS3 protease / helicase immunodominant region Protein (aa 1356-1459, GST Tag)

Catalog Number: 40286-V09E

General Information

Gene Name Synonym:

NS3

Protein Construction:

A DNA sequence encoding the Hepatitis C virus (HCV)(serotype 1a, isolate H77) NS3 (NP_803144.1) (Thr1356-Thr1459) was expressed with a GST tag at the N-terminus.

Source: HCV

Expression Host: E. coli

QC Testing

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

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant Hepatitis C virus (HCV)(serotype 1a, isolate H77) NS3 consists 335 amino acids and predicts a molecular mass of 37.9 kDa.

Formulation:

Lyophilized from sterile 50 mM Tris, 500 mM NaCl.

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:

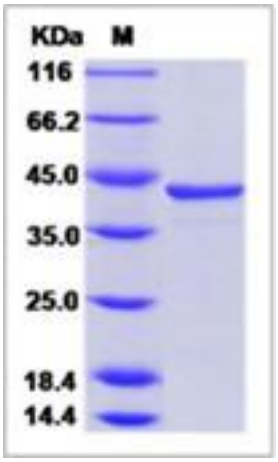
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

HCV NS3 displays three enzymatic activities: serine protease, NTPase and RNA helicase. HCV NS3 serine protease, in association with NS4A, is responsible for the cleavages of NS3-NS4A, NS4A-NS4B, NS4B-NS5A and NS5A-NS5B. NS3/NS4A complex also prevents phosphorylation of human IRF3, thus preventing the establishment of dsRNA induced antiviral state. HCV NS3 RNA helicase binds to RNA and unwinds dsRNA in the 3' to 5' direction, and likely RNA stable secondary structure in the template strand (By similarity). Cleaves and inhibits the host antiviral protein MAVS.

References

1.Pomerantz J.L., *et al.*,(1999), NF-kB activation by a signaling complex containing TRAF2, TANK, and TBK1, a novel IKK-related kinase. EMBO J. 18:6694-6704. 2.Tojima Y., *et al.*, (2000), NAK is an IkappaB kinase-activating kinase.Nature 404:778-782. 3.Ota T., *et al.*,(2004), Complete sequencing and characterization of 21,243 full-length human cDNAs.Nat. Genet. 36:40-45.