

Product datasheet

Recombinant Hepatitis C Virus Core 3a protein ab123527

Overview

Product name	Recombinant Hepatitis C Virus Core 3a protein
Protein length	Protein fragment

Description

Nature	Recombinant
Source	Escherichia coli
Amino Acid Sequence	
Accession	Q81258
Molecular weight	23 kDa
Amino acids	1 to 216

Specifications

Our [Abpromise guarantee](#) covers the use of **ab123527** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Biological activity	One unit of protease hydrolyzes 1 picomole of Ac-Asp-Glu-Dap(QXL™520)-Glu-Glu-Abu-COO-Ala-Ser-Cys(5-FAMsp)-NH ₂ per minute at pH 7.5 at 25° C. ab123527 is in active form and the pre-activation by pep4A or pep4AK is not necessary.
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Applications	Functional Studies
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Form	Liquid
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Additional notes

NS3 protease of hepatitis C virus (HCV), located on the N-terminal domain of HCV NS3, is responsible for the cleavage at the NS3/NS4A, NS4A/NS4B, NS4B/NS5A, and NS5A/NS5B sites of the nonstructural protein. The HCV NS3 is a chymotrypsin-like serine protease. It requires a cofactor, a 54 amino acid NS4 protein, to reach its optimal activity. The X-ray crystal structure studies show that NS3 forms a tight non-covalent complex with NS4. The NS3/4A protease is essential for viral replication and the formation of infectious viral particles.

Preparation and Storage

Stability and Storage

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 8.00

Constituents: 0.75% Potassium chloride, 0.003% DTT, 0.32% Tris HCl, 0.06% EDTA, 20% Glycerol

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Relevance

HCV (Hepatitis C Virus) viral core protein forms the internal viral coat that encapsidates the genomic RNA and is enveloped in a host cell-derived lipid membrane. The hepatitis C virus (HCV) core protein represents the first 177 amino acids of the viral precursor polyprotein and is cotranslationally inserted into the membrane of the endoplasmic reticulum. The N terminus of the core protein is involved in transcriptional repression. HCV core protein is among the most conserved proteins in HCV and is known to induce sensitization of cytotoxic T lymphocytes (CTL). Therefore, it is a prime candidate for a component of a potential HCV vaccine.

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