

HAV-VP3 (residues 304-415)

(Hepatitis A Virus VP3 Capsid Protein)

Recombinant, *E. coli*

Cat. No.	Amount
PR-1119-1	1 mg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied as a 1 mg/ml solution in 10 mM CBB, pH 9.6, 0.1% SDS, and 50% glycerol.

Specificity

Immunoreactive with sera of HAV-infected individuals.

Protein synonyms/aliases

Genome polyprotein

Purity

>95% by SDS-PAGE (coomassie staining) and RP-HPLC.

Description

The protein contains the HAV VP3 immunodominant regions, amino acids: 304-415.

Hepatitis A Virus VP1 protein is purified by proprietary chromatographic techniques.

Application

Recombinant HAV-VP3 may be used in ELISA and Western blots, excellent for detection of HAV with minimal specificity problems.

Background

HAV, the prototype of the genus Hepatovirus, belongs to the family Picornaviridae.

Its 7.5-kb single-stranded RNA genome bears different distinct regions: the 5' and 3' noncoding regions (NCR), the P1 region, which encodes the structural proteins VP1, VP2, VP3, and a putative VP4, and the P2 and P3 regions encoding nonstructural proteins associated with replication. Hepatitis A virus (HAV) encodes a single polyprotein which is posttranslationally processed into the functional structural and nonstructural proteins.

Only one protease, viral protease 3C, has been implicated in the nine protein scissions.

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Selected References:

Sanchez G. *et al.* (2004) A novel CD4+ T-helper lymphocyte epitope in the VP3 protein of hepatitis A virus. *J. Med. Virol.* **72**:525.

Kanda T. *et al.* (2004) Hepatitis A virus VP3 may activate serum response element associated transcription. *Scand. J. Gastroenterol.* **38**:307.

Haro I. *et al.* (2003) Liposome entrapment and immunogenic studies of a synthetic lipophilic multiple antigenic peptide bearing VP1 and VP3 domains of the hepatitis A virus: a robust method for vaccine design. *FEBS Lett.* **540**:133.

Chavez A. *et al.* (2001) Membrane fusion induced by a lipopeptidic epitope from VP3 capsid protein of hepatitis A virus. *Luminescence.* **16**:135.

Sospedra P. *et al.* (2001) Interaction study of peptide from VP3 capsid protein of hepatitis A virus through monolayers and fluorescence spectroscopy. *Luminescence.* **16**:103.

Chavez A. *et al.* (2001) Membrane fusion by an RGD-containing sequence from the core protein VP3 of hepatitis A virus and the RGA-analogue: implications for viral infection. *Biopolymers.* **58**:63.