

HAV-VP1 (residues 502-605) Hepatitis A Virus Coat Protein VP1 recombinant, *E. coli*

Cat. No.	Amount
PR-1112	100 μ g

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

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 10 mM CBB pH 9.6, 0.1% SDS, and 50% glycerol.

Application

Recombinant HAV-VP1 Antigen may be used in ELISA and Western blots, excellent for detection of HAV with minimal specificity problems.

Specificity

Immunoreactive with sera of HAV-infected individuals.

Molecular Weight

48 kDa

Purity

>90% by SDS-PAGE

Description

The *E. coli* derived 48 kDa recombinant protein contains the VP1 immunodominant regions, amino acids 502-605.

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

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.

Selected References:

- Haro *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.
- Costa-Mattioli *et al.* (2002) Molecular evolution of hepatitis A virus: a new classification based on the complete VP1 protein. *J. Virol.* **76**:9516.
- Emerson *et al.* (2002) Identification of VP1/2A and 2C as virulence genes of hepatitis A virus and demonstration of genetic instability of 2C. *J. Virol.* **76**:8551.
- Kang *et al.* (2002) A proposed vestigial translation initiation motif in VP1 of hepatitis A virus. *Virus Res.* **87**:11.
- Martin *et al.* (1999) Maturation of the hepatitis A virus capsid protein VP1 is not dependent on processing by the 3Cpro proteinase. *J. Virol.* **73**:6220.
- Graff *et al.* (1999) Hepatitis A virus capsid protein VP1 has a heterogeneous C terminus. *J. Virol.* **73**:6015.