

Hepatitis E virus (HEV) Capsid Protein

05-030 20 µg, 05-031 100 µg

Shipping and Storage: Shipped at 4°C or at -20°C.

Product: Recombinant truncated capsid protein, ORF2, (amino acids 112-608) of HEV (genotype 3, 2712 strain) produced by and purified from baculovirus expression system. Forms Virus-Like Protein (VLP)

Applications

1. Antigen for detection of anti-HEV antibodies in diagnostics, Western blot, and ELISA
2. Immunogen to raise anti-HEV capsid protein antibodies.

Form: 1 mg /ml in 50% glycerol / PBS (-)

Background: Hepatitis E virus (HEV) is single-strand positive-sense RNA virus in the family Hepeviridae. The disease caused by HEV is an important public health problem in developing countries. A molecular phylogenetic analysis classifies HEV into four major genotypes (genotype 1-4). The genome HEV consists of about 7200 bases and contains three discontinuous and partially overlapping open reading frames (ORFs). ORF1 encodes a methyltransferase, protease, helicase and replicase; ORF2 encodes the capsid protein and ORF3 encodes a protein of undefined function. The viral capsid protein induces neutralizing antibodies, and contains three subdomains, S (aa112-319), M (aa 320-456) and P (aa 457-608). Recombinant capsid protein is composed of approximately 53 kDa, smaller capsid protein subunit.

Data Link: UniProKB [Q6J8F7](https://www.uniprot.org/entry/Q6J8F7) (CAPSD_HEVMG), genotype 3

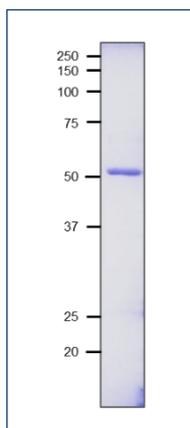


Fig.1 SDS-PAGE analysis of purified HEV capsid protein (2µg applied)

Reference: This protein was described and used in the following publication.

1. Yamashita T et al. Biological and immunological characteristics of hepatitis E virus-like particles based on the crystal structure. [PNAS 2009 Aug 4; 106\(31\):12986-91](#) . [PMID: 19620712](#). IP, ELISA
2. Li TC et al. Essential elements of the capsid protein for self-assembly into empty virus-like particles of hepatitis E virus. *J Virol.* 2005 Oct;79(20):12999-3006. PMID: [16189002](#)
3. Li TC et al. Protection of cynomolgus monkeys against HEV infection by oral administration of recombinant hepatitis E virus-like particles. *Vaccine.* 2004 Jan 2;22(3-4):370-7. PMID: [14670318](#)

Related Products:

65-090 Anti-HEV Capsid antibody, mouse monoclonal (161)