Hepatitis E virus (HEV) Capsid Protein

The Cartagene protocol on Biosafety: Applicable

Product code	05-030 05-031
Size	20µg 100µg
Storage	Store at -20℃. Avoid freeze-thaw cycles.
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)
Concentration	1 mg/ml
Buffer	50% glycerol/PBS-
Purity	The product was HEV capsid protein produced by baculovirus / insect cell expression system, fractionated by ultracentrifugation.
Biochemical Activity	N/A
Application	1. Antigen for detection of anti-HEV antibodies in diagnostics, Western blot, and ELISA 2. Immunogen to raise anti-HEV capsid protein antibodies.
Special notes	This product was expressed using a baculovirus expression system. **The Cartagene protocol on Biosafety: Applicable**
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 (CAPSD_HEVMG), genotype 3

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

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Data Images: 05-030, 05-031 Hepatitis E virus (HEV) Capsid Protein

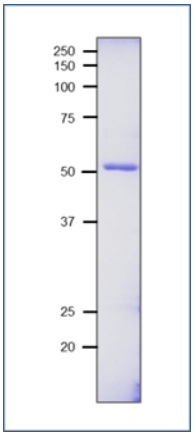

Fig.1 SDS-PAGE analysis of purified HEV capsid protein (2μg applied)

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)

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