Hep E (3H172): sc-71242



The Power to Question

BACKGROUND

Hepatitis is a gastroenterological disease characterized by malaise, joint aches, abdominal pain, jaundice and inflammation of the liver. Hep E (Hepatitis E) is a member of the flaviviridae family and is spread through fecal contamination of food and water supplies. The Hep E virion is a round, nonenveloped, isometric capsid with a diameter of 27-34 nm. Within the capsid lies a single-stranded, positive-sense RNA genome of approximately 4.5 kb. Hep E contains an RdRp (RNA-directed RNA polymerase) catalytic domain, which is essential for viral replication, as well as the synthesis of an RNA strand that is complementary to the template. Hep E is the primary cause of transmitted non-A, non-B viral hepatitis (ET-NANBH). Hep E infection generally affects young adults and has a mortality rate of 20% in women who are more than 6 months pregnant.

REFERENCES

- Yarbough, P.O., Tam, A.W., Fry, K.E., Krawczynski, K., McCaustland, K.A., Bradley, D.W. and Reyes, G.R. 1991. Hepatitis E virus: identification of type-common epitopes. J. Virol. 65: 5790-5797.
- Tam, A.W., Smith, M.M., Guerra, M.E., Huang, C.C., Bradley, D.W., Fry, K.E. and Reyes, G.R. 1991. Hepatitis E virus (HEV): molecular cloning and sequencing of the full-length viral genome. Virology 185: 120-131.
- 3. Huang, C.C., Nguyen, D., Fernandez, J., Yun, K.Y., Fry, K.E., Bradley, D.W., Tam, A.W. and Reyes, G.R. 1992. Molecular cloning and sequencing of the Mexico isolate of hepatitis E virus (HEV). Virology 191: 550-558.
- Koonin, E.V., Gorbalenya, A.E., Purdy, M.A., Rozanov, M.N., Reyes, G.R. and Bradley, D.W. 1992. Computer-assisted assignment of functional domains in the nonstructural polyprotein of hepatitis E virus: delineation of an additional group of positive-strand RNA plant and animal viruses. Proc. Natl. Acad. Sci. USA 89: 8259-8263.
- Meng, X.J., Purcell, R.H., Halbur, P.G., Lehman, J.R., Webb, D.M., Tsareva, T.S., Haynes, J.S., Thacker, B.J. and Emerson, S.U. 1997. A novel virus in swine is closely related to the human hepatitis E virus. Proc. Natl. Acad. Sci. USA 94: 9860-9865.
- Thomas, D.L., Yarbough, P.O., Vlahov, D., Tsarev, S.A., Nelson, K.E., Saah, A.J. and Purcell, R.H. 1997. Seroreactivity to hepatitis E virus in areas where the disease is not endemic. J. Clin. Microbiol. 35: 1244-1247.
- Meng, X.J., Halbur, P.G., Shapiro, M.S., Govindarajan, S., Bruna, J.D., Mushahwar, I.K., Purcell, R.H. and Emerson, S.U. 1998. Genetic and experimental evidence for cross-species infection by swine hepatitis E virus. J. Virol. 72: 9714-9721.
- 8. Schlauder, G.G., Dawson, G.J., Erker, J.C., Kwo, P.Y., Knigge, M.F., Smalley, D.L., Rosenblatt, J.E., Desai, S.M. and Mushahwar, I.K. 1998. The sequence and phylogenetic analysis of a novel hepatitis E virus isolated from a patient with acute hepatitis reported in the United States. J. Gen. Virol. 79: 447-456.
- Meng, X.J., Wiseman, B., Elvinger, F., Guenette, D.K., Toth, T.E., Engle, R.E., Emerson, S.U. and Purcell, R.H. 2002. Prevalence of antibodies to hepatitis E virus in veterinarians working with swine and in normal blood donors in the United States and other countries. J. Clin. Microbiol. 40: 117-122.

SOURCE

Hep E (3H172) is a mouse monoclonal antibody raised against a chimeric polyprotein corresponding to at least 30 amino acids of the ORF3 region of Chinese Hep E strains.

PRODUCT

Each vial contains 200 μg IgM in 1.0 mL PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Hep E (3H172) is recommended for detection of Hep E of Hep E origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Hep C NS3 and Hep C NS4.

Molecular Weight of Hep E: 53 kDa.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com