Product datasheet

Anti-Hepatitis C Virus Core 1b antibody [C7-50] ab2740

Overview

Product name: Anti-Hepatitis C Virus Core 1b antibody [C7-50]
Description: Mouse monoclonal [C7-50] to Hepatitis C Virus Core 1b
Host species: Mouse
Specificity: Detects hepatitis C virus (HCV) core protein from transfected human and primate cell lines.
Tested applications: Suitable for: IP, Flow Cyt, ICC/IF, IHC-P, ELISA, WB
Species reactivity: Reacts with: Hepatitis C virus
Immunogen: Recombinant full length protein (GST-tag) corresponding to Hepatitis C Virus Core 1b.
Epitope: This antibody recognizes an epitope between amino acid residues 21-40 of HCV core protein. This sequence is conserved among different HCV strains.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: Preservative: 0.05% Sodium azide
Purity: Protein A purified
Clonality: Monoclonal
Clone number: C7-50
Isotype: IgG1

Applications

Our Abpromise guarantee covers the use of ab2740 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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**Relevance**

HCV (Hepatitis C Virus) viral core protein forms the internal viral coat that encapsidates the genomic RNA and is enveloped in a host cell-derived lipid membrane. The hepatitis C virus (HCV) core protein represents the first 177 amino acids of the viral precursor polyprotein and is cotranslationally inserted into the membrane of the endoplasmic reticulum. The N terminus of the core protein is involved in transcriptional repression. There are over 20 different subtypes of Hepatitis C Virus; HCV type 1b is mostly found in Europe and Asia. The prevalence of HCV type 1b infection has recently decreased, although it still accounts for most HCV-related cirrhosis and hepatocellular carcinoma. High HCV viremia levels and HCV genotype type 1b are independent predictors for poor response to interferon-alpha therapy. HCV core protein is among the most conserved proteins in HCV and is known to induce sensitization of cytotoxic T lymphocytes (CTL). Therefore, it is a prime candidate for a component of a potential HCV vaccine.

**Cellular localization**

Secreted; Host endoplasmic reticulum membrane; Single-pass membrane protein; Host nucleus; Host cytoplasm.

### Application | Abreviews | Notes
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Flow Cyt | 1/100. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody. |  
ICC/IF | ⭐⭐⭐⭐⭐ | Use at an assay dependent concentration. PubMed: 20422251 |
IHC-P | ⭐⭐⭐⭐ | Use at an assay dependent concentration. PubMed: 25155355 |
ELISA |  | Use at an assay dependent concentration. |
WB | ⭐⭐⭐⭐⭐ | Use a concentration of 1 µg/ml. This antibody detects a single ~21 kDa protein representing HCV core protein in various transfected cell lines. |
ab2740 staining Hepatitis C Virus Core Antigen in the Huh7-Lunet Cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with Triton X-100 and blocked with 1% BSA for 30 minutes at 37°C. Samples were incubated with primary antibody (1/200 in PBS + 1% BSA) for 1 hour at 37°C. An undiluted Alexa Fluor® 647-conjugated Goat anti-mouse IgG monoclonal was used as the secondary antibody.

Immunofluorescence analysis of Huh-7.5.1 cells infected with either Hepatitis C virus (J6/JFH-C) or Hepatitis C virus defective in RNA polymerase activity (J6/JFH pol-null). Hepatitis C Virus Core Antigen (red) was stained with ab2740 at 1/300 dilution, 96 hours after infection. A Cy3®-conjugated goat anti-mouse IgG polyclonal was used as the secondary antibody. Nuclei were stained with DAPI (blue).

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