SANTA CRUZ BIOTECHNOLOGY, INC.

Hepatocyte Specific Antigen (OCH1E5): sc-58693

BACKGROUND

Hepatocyte Specific Antigen, also called Hepatocyte Paraffin 1 or Hep Par 1, localizes to the mitochondria of hepatocytes. It is a sensitive marker for diagnosing hepatocellular carcinomas (HCC) in humans and dogs and distinguishing them from metastatic carcinomas and cholangiocarcinomas. Strong expression of the Hepatocyte Specific Antigen correlates with smaller tumors and longer patient survival. HCCs occur primarily in the stomach, but they are also found in many other organs. The Hepatocyte Specific Antigen may also be a useful marker for intestinal metaplasia. A very small percentage of HCCs do not contain the Hepatocyte Specific Antigen, and this may be associated with an alternative mechanism of hepatocarcinogenesis in its early stages. To a lesser extent, the Hepatocyte Specific Antigen is also found in gastric carcinomas as well as a few other nonhepatic tumors.

SOURCE

Hepatocyte Specific Antigen (OCH1E5) is a mouse monoclonal antibody raised against liver extract of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Hepatocyte Specific Antigen (OCH1E5) is available conjugated to agarose (sc-58693 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58693 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58693 PE), fluorescein (sc-58693 FITC), Alexa Fluor® 488 (sc-58693 AF488), Alexa Fluor® 546 (sc-58693 AF546), Alexa Fluor® 594 (sc-58693 AF594) or Alexa Fluor® 647 (sc-58693 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-58693 AF680) or Alexa Fluor® 790 (sc-58693 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Hepatocyte Specific Antigen (OCH1E5) is recommended for detection of an uncharacterized antigen present in both adults and fetal normal hepatocytes to produce a distinct granular cytoplasmic staining. This antibody stains the majority of hepatocellular carcinomas of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 2) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

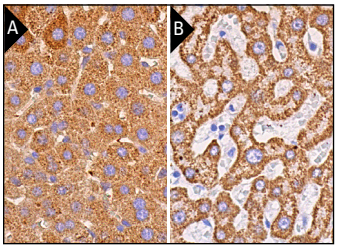
STORAGE

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.

DATA



Hepatocyte Specific Antigen (OCH1E5): sc-58693. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver (**A**) and human liver (**B**) tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. Xu, J., et al. 2009. Cathepsin S is aberrantly overexpressed in human hepatocellular carcinoma. Mol. Med. Rep. 2: 713-718.
2. Wijayalath, W., et al. 2014. Humanized HLA-DR4.RagKO.IL2RγcKO.NOD (DRAG) mice sustain the complex vertebrate life cycle of *Plasmodium falciparum* malaria. Malar. J. 13: 386.
3. Fenton, S.E., et al. 2015. Targeting Fyn in Ras-transformed cells induces F-Actin to promote adherens junction-mediated cell-cell adhesion. Mol. Carcinog. 54: 1181-1193.
4. Hammam, O.A., et al. 2016. Wharton's jelly-derived mesenchymal stem cells combined with praziquantel as a potential therapy for *Schistosoma mansoni*-induced liver fibrosis. Sci. Rep. 6: 21005.
5. Frentzas, S., et al. 2016. Vessel co-option mediates resistance to anti-angiogenic therapy in liver metastases. Nat. Med. 22: 1294-1302.
6. Lee, E.H., et al. 2016. Immunogenomics reveal molecular circuits of diclofenac induced liver injury in mice. Oncotarget 7: 14983-15017.
7. Ibrahim, N.S., et al. 2019. Angiopoietin1 deficiency in hepatocytes affects the growth of colorectal cancer liver metastases (CRCLM). Cancers 12: 35.
8. Traum, D., et al. 2021. Highly multiplexed 2-dimensional imaging mass cytometry analysis of HBV-infected liver. JCI Insight 6: 146883.
9. Shibata, O., et al. 2022. Establishment of a pancreatic cancer animal model using the pancreas-targeted hydrodynamic gene delivery method. Mol. Ther. Nucleic Acids 28: 342-352.

PROTOCOLS

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