SANTA CRUZ BIOTECHNOLOGY, INC.

Hepatic Lipase (XHL1-1C): sc-21741

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The lipase family belongs to one of the most robust genetic superfamilies found in living organisms that includes esterases and thioesterases. Lipase gene products are related by tertiary structure rather than primary amino acid sequence. Balancing the composition and the transport of lipoproteins in human plasma is essential for normal body function and is mediated in part by Hepatic Lipase, also known as HL or LIPC. Rare deficiencies in Hepatic Lipase have been identified in humans which lead to pathologic levels of circulating lipoprotein particles; this condition is associated with coronary artery disease (CAD). Hepatic Lipase is regulated by thyroid hormones and has a dual function as a triglyceride hydrolase and a ligand/bridging factor for receptor-mediated lipoprotein uptake. Hepatic Lipase localizes to the endothelial surfaces of extrahepatic tissues. The human Hepatic Lipase gene spans over 60 kb, contains nine exons and eight introns, and encodes a 499 amino acid protein.

CHROMOSOMAL LOCATION

Genetic locus: LIPC (human) mapping to 15q21.3.

SOURCE

Hepatic Lipase (XHL1-1C) is a mouse monoclonal antibody raised against highly purified Hepatic Triglyceride Lipase from post-heparin plasma 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.

Hepatic Lipase (XHL3-6) is available conjugated to agarose (sc-21740 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-21740 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-21740 PE), fluorescein (sc-21740 FITC), Alexa Fluor® 488 (sc-21740 AF488), Alexa Fluor® 546 (sc-21740 AF546), Alexa Fluor® 594 (sc-21740 AF594) or Alexa Fluor® 647 (sc-21740 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-21740 AF680) or Alexa Fluor® 790 (sc-21740 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Hepatic Lipase (XHL1-1C) is recommended for detection of Hepatic Lipase of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for Hepatic Lipase siRNA (h): sc-35560, Hepatic Lipase shRNA Plasmid (h): sc-35560-SH and Hepatic Lipase shRNA (h) Lentiviral Particles: sc-35560-V.

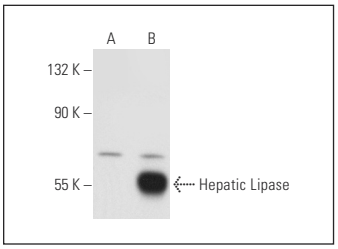
Molecular Weight of Hepatic Lipase: 57-59 kDa.

Positive Controls: Hepatic Lipase (h): 293T Lysate: sc-112686, MCF7 whole cell lysate: sc-2206 or Hep G2 cell lysate: sc-2227.

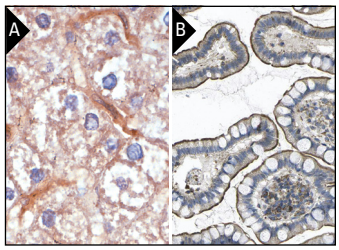
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Hepatic Lipase (XHL1-1C): sc-21741. Western blot analysis of Hepatic Lipase expression in non-transfected: sc-117752 (**A**) and human Hepatic Lipase transfected: sc-112686 (**B**) 293T whole cell lysates.



Hepatic Lipase (XHL1-1C): sc-21741. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human liver tissue showing membrane and cytoplasmic staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing microvilli staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Galluzzi, L., et al. 2013. Prognostic value of LIPC in non-small cell lung carcinoma. Cell Cycle 12: 647-654.
2. Grosskopf, I., et al. 2014. Low molecular weight heparin-induced increase in chylomicron-remnants clearance, is associated with decreased plasma TNF-α level and increased Hepatic Lipase activity. Thromb. Res. 133: 688-692.
3. Grosskopf, I., et al. 2016. Nifedipine treatment for hypertension is associated with enhanced lipolytic activity and accelerated clearance of postprandial lipemia. Horm. Metab. Res. 48: 257-262.
4. Stoll, G., et al. 2019. Metabolic enzymes expressed by cancer cells impact the immune infiltrate. Oncoimmunology 8: e1571389.

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.