SANTA CRUZ BIOTECHNOLOGY, INC.

HBXIP (H-5): sc-373980

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

HBXIP (hepatitis B virus X-interacting protein), also known as HBV X-interacting protein or HBX-interacting protein, was originally identified by its ability to form a complex with the C-terminus of hepatitis B virus X (HBX) protein. HBXIP negatively regulates the activity of HBX and alters the replicative life cycle of the virus. HBXIP is an evolutionarily conserved protein. It contains a leucine zipper motif and two consensus phosphorylation sites. HBXIP also forms complexes with survivin (an overexpressed protein in most human cancers) and is necessary for allowing survivin to bind and inhibit the activation of pro-caspase-9, suggesting that HBXIP acts as an anti-apoptotic cofactor of survivin. In addition, HBXIP is involved in bipolar spindle formation and regulates centrosome dynamics and cytokinesis in cells, possibly through an interaction with Dynein light chain. The overexpression of HBXIP promotes proliferation in a variety of cells lines.

REFERENCES

1. Melegari, M., et al. 1998. Cloning and characterization of a novel hepatitis B virus x binding protein that inhibits viral replication. J. Virol. 72: 1737-1743.
2. Marusawa, H., et al. 2003. HBXIP functions as a cofactor of survivin in apoptosis suppression. EMBO J. 22: 2729-2740.
3. Capovilla, A. and Arbuthnot, P. 2003. Hepatitis B virus X protein does not influence essential steps of nucleotide excision repair effected by human liver extracts. Biochem. Biophys. Res. Commun. 312: 806-810.
4. Chandele, A., et al. 2004. Upregulation of survivin in G_2/M cells and inhibition of caspase 9 activity enhances resistance in staurosporine-induced apoptosis. Neoplasia 6: 29-40.
5. Zangemeister-Wittke, U., et al. 2004. An IAP in action: the multiple roles of survivin in differentiation, immunity and malignancy. Cell Cycle 3: 1121-1123.

CHROMOSOMAL LOCATION

Genetic locus: LAMTOR5 (human) mapping to 1p13.3; Lamtor5 (mouse) mapping to 3 F2.3.

SOURCE

HBXIP (H-5) is a mouse monoclonal antibody raised against amino acids 1-91 representing full length HBXIP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HBXIP (H-5) is available conjugated to agarose (sc-373980 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-373980 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373980 PE), fluorescein (sc-373980 FITC), Alexa Fluor® 488 (sc-373980 AF488), Alexa Fluor® 546 (sc-373980 AF546), Alexa Fluor® 594 (sc-373980 AF594) or Alexa Fluor® 647 (sc-373980 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373980 AF680) or Alexa Fluor® 790 (sc-373980 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HBXIP (H-5) is recommended for detection of HBXIP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

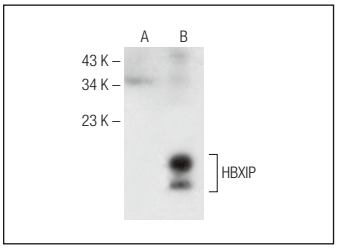
HBXIP (H-5) is also recommended for detection of HBXIP in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for HBXIP siRNA (h): sc-72289, HBXIP siRNA (m): sc-77371, HBXIP shRNA Plasmid (h): sc-72289-SH, HBXIP shRNA Plasmid (m): sc-77371-SH, HBXIP shRNA (h) Lentiviral Particles: sc-72289-V and HBXIP shRNA (m) Lentiviral Particles: sc-77371-V.

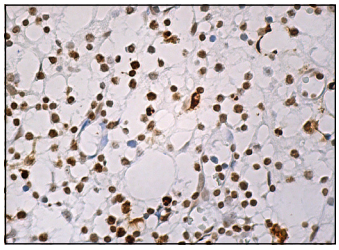
Molecular Weight of HBXIP: 18 kDa.

Positive Controls: HBXIP (h): 293T Lysate: sc-116745, MCF7 whole cell lysate: sc-2206 or Jurkat whole cell lysate: sc-2204.

DATA



HBXIP (H-5): sc-373980. Western blot analysis of HBXIP expression in non-transfected: sc-117752 (**A**) and human HBXIP transfected: sc-116745 (**B**) 293T whole cell lysates.



HBXIP (H-5): sc-373980. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing nuclear staining of hemat-opoietic cells.

SELECT PRODUCT CITATIONS

1. Li, H., et al. 2018. Hepatitis B X-interacting protein promotes the formation of the insulin gene-transcribing protein complex Pdx-1/Neurod1 in animal pancreatic β-cells. J Biol Chem. 293: 2053-2065.
2. Huang, Z., et al. 2020. YAP1 promotes tumor invasion and metastasis in nasopharyngeal carcinoma with hepatitis B virus infection. Onco Targets Ther. 13: 5629-5642.
3. Du, X., et al. 2022. Nuciferine protects against high-fat diet-induced hepatic steatosis and insulin resistance via activating TFEB-mediated autophagy-lysosomal pathway. Acta Pharm. Sin. B 12: 2869-2886.

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.