abcam

ab157480

Anti-HBXIP antibody [EPR11531(B)]

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR11531(B)
Purification technique	Affinity purification Protein A
Concentration	0.857 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information LAMTOR5

Function	As part of the Ragulator complex it is involved in amino acid sensing and activation of mTORC1, a signaling complex promoting cell growth in response to growth factors, energy levels, and amino acids (PubMed:22980980, PubMed:29158492, PubMed:30181260). Activated by amino acids through a mechanism involving the lysosomal V-ATPase, the Ragulator plays a dual role for the small GTPases Rag (RagA/RRAGA, RagB/RRAGB, RagC/RRAGC and/or RagD/RRAGD): it (1) acts as a guanine nucleotide exchange factor (GEF), activating the small GTPases Rag and (2) mediates recruitment of Rag GTPases to the lysosome membrane

(PubMed:22980980, PubMed:28935770, PubMed:29107538, PubMed:29158492, PubMed:30181260). Activated Ragulator and Rag GTPases function as a scaffold recruiting mTORC1 to lysosomes where it is in turn activated (PubMed:22980980, PubMed:29158492, PubMed:30181260). When complexed to BIRC5, interferes with apoptosome assembly, preventing recruitment of pro-caspase-9 to oligomerized APAF1, thereby selectively suppressing apoptosis initiated via the mitochondrial/cytochrome c pathway (PubMed:12773388).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	HBXIP also known as Hepatitis B X-interacting protein or LAMTOR5 is a protein with a mass of approximately 18 kDa. HBXIP binds to the HIV-1 protease and is involved in the activation of diverse cellular processes. It predominantly expresses in heart kidney liver and skeletal muscle tissues. The protein's mechanical role involves interacting with the hepatitis B virus X protein (HBx) enhancing the replication of hepatitis B virus particles.
Biological function summary	HBXIP impacts multiple cellular functions in a complex manner. It participates in the regulation of centrosome dynamics and cell division. HBXIP interacts with proteins such as survivin in a complex that plays a role in mitosis. HBXIP also

	influences gene expression by modulating estrogen receptor signaling. These functions make HBXIP a significant component in cellular growth control.
Pathways	HBXIP engages in cell cycle regulation and apoptosis. It affects the mTOR signaling pathway important for cell growth and metabolism. Within this context HBXIP acts alongside proteins like mTOR and RHEB influencing nutrient and energy status in the cell. Furthermore its interaction with the p53 pathway highlights its role in controlling cell survival and the response to DNA damage.
Associated diseases and disorders	HBXIP displays connections to cancer and viral infections. In cancer HBXIP overexpression correlates with tumor progression and poor patient prognosis commonly seen in breast cancer. Through its influence on nuclear factor-kB (NF-kB) HBXIP associates with inflammatory responses tied to cancer progression. Additionally its relationship with hepatitis B viral oncogenesis highlights a link between HBXIP and liver disorders signaling interaction with the viral HBx protein as a point of mechanism.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

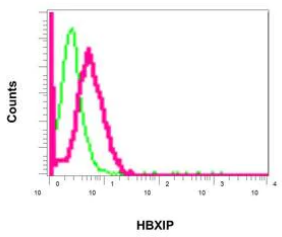
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

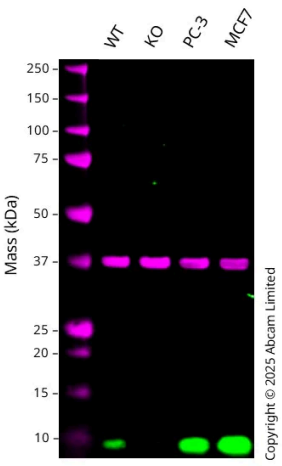
4 product images



Flow Cytometry (Intracellular) - Anti-HBXIP antibody [EPR11531(B)] (ab157480)

HBXIP Flow Cytometry (Intracellular) staining using rabbit Anti-HBXIP antibody

Intracellular flow cytometric analysis of permeabilized BxPC-3 cells labeling HBXIP with ab157480 at 1/100 dilution (red) compared to a rabbit IgG negative control (green).



Western blot - Anti-HBXIP antibody [EPR11531(B)] (ab157480)

HBXIP Western blot staining using rabbit Anti-HBXIP antibody

Western blot: Anti-HBXIP antibody [EPR11531(B)] ab157480 staining at 1/1000 dilution, shown in green; Mouse anti GAPDH ab8245 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 9 kDa in Wild-type A549 cell lysates with no signal observed at this size in LAMTOR5 knockout A549 cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-HBXIP antibody [EPR11531(B)] (ab157480) at 1/1000 dilution

Lane 1:
Wild-type A549 at 20 µg

Lane 2:
LAMTOR5 knockout A549 at 20 µg

Lane 3:
PC-3 at 20 µg

Lane 4:
MCF7 at 20 µg

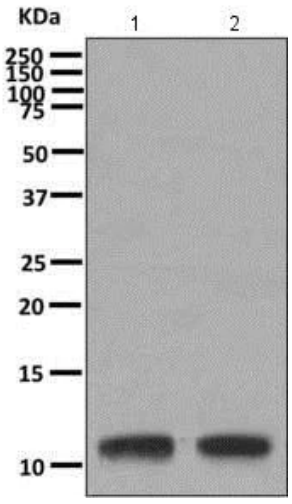
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 10 kDa

Observed band size: 9 kDa, 37 kDa



Western blot - Anti-HBXIP antibody [EPR11531(B)] (ab157480)

All lanes:
Western blot - Anti-HBXIP antibody [EPR11531(B)] (ab157480) at 1/1000 dilution

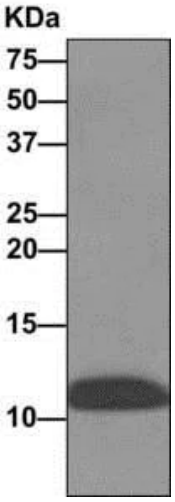
Lane 1:
BxPC-3 cell lysate at 10 µg

Lane 2:
MCF7 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 10 kDa



Western blot - Anti-HBXIP antibody [EPR11531(B)] (ab157480)

All lanes:
Western blot - Anti-HBXIP antibody [EPR11531(B)] (ab157480) at 1/1000 dilution

All lanes:
immunoprecipitation pellet from BxPC-3 cell lysate

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 10 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.