Anti-Livin Antibody [PSH12-72] - BSA and Azide free

HA751448

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P, IP
Molecular Wt:	Predicted band size: 33 kDa
Clone number:	PSH12-72

Description: BIRC7, also known as Livin, is a member of the inhibitor of apoptosis protein (IAP) family. It plays a dual role as an apoptotic regulator, capable of exerting both proapoptotic and anti-apoptotic activities. Livin is crucial for controlling apoptosis, cell proliferation, and cell cycle regulation. Its anti-apoptotic function is primarily mediated through the inhibition of caspases, including CASP3, CASP7, and CASP9, as well as through its E3 ubiquitin-protein ligase activity. Livin promotes cell survival by ubiquitinating and targeting DIABLO/SMAC for degradation, thereby preventing DIABLO/SMAC from disrupting XIAP/BIRC4-caspase interactions. Livin protects cells from apoptosis induced by TNF or chemical agents such as adriamycin, etoposide, and staurosporine. This anti-apoptotic effect is achieved through the activation of MAPK8/JNK1 and possibly MAPK9/JNK2, which depends on TAB1 and MAP3K7/TAK1. In vitro, Livin inhibits CASP3 and the proteolytic activation of pro-CASP9. Structurally, Livin contains a single baculoviral IAP repeat (BIR) domain and a RING domain at the C-terminus. Overexpression of Livin has been observed in various cancers, including lung, colon, and prostate cancers, making it a potential therapeutic target.

Immunogen: Recombinant protein within human Livin aa 1-250.

Positive control: SK-MEL-28 cell lysate, human breast cancer tissue, human placenta tissue.

Subcellular location: Nucleus, Cytoplasm, Golgi apparatus

Database links: SwissProt: Q96CA5 Human

Recommended Dilutions:

WB	1:5,000
IHC-P	1:2,000
IP	1-2μg/sample

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

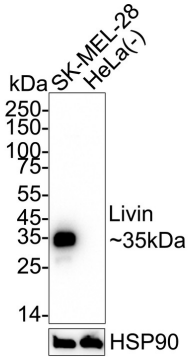

Fig1: Western blot analysis of Livin on different lysates with Rabbit anti-Livin antibody (HA751448) at 1/5,000 dilution.

Lane 1: SK-MEL-28 cell lysate
Lane 2: HeLa cell lysate (negative)

Lysates/proteins at 20 µg/Lane.

Predicted band size: 33 kDa
Observed band size: 35 kDa

Exposure time: 30 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA751448) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

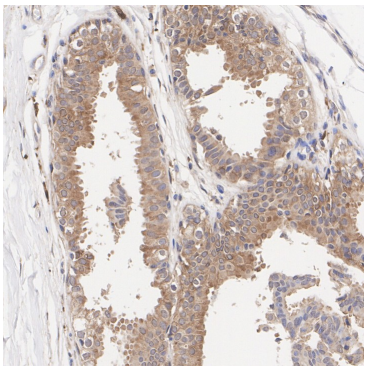

Fig2: Immunohistochemical analysis of paraffin-embedded human breast cancer tissue with Rabbit anti-Livin antibody (HA751448) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA751448) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

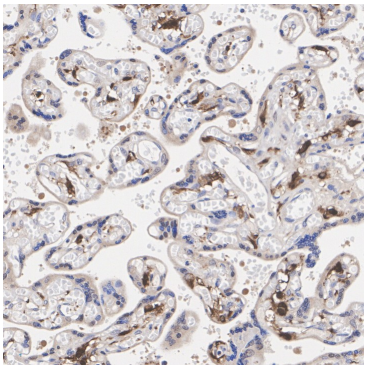

Fig3: Immunohistochemical analysis of paraffin-embedded human placenta tissue with Rabbit anti-Livin antibody (HA751448) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA751448) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

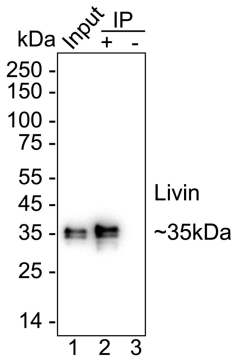

Fig4: Livin was immunoprecipitated from 0.2 mg SK-MEL-28 cell lysate with HA751448 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA751448 at 1/5,000 dilution. HRP Conjugated Anti-Rabbit IgG for IP Nano-secondary antibody at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: SK-MEL-28 cell lysate (input)
Lane 2: HA751448 IP in SK-MEL-28 cell lysate
Lane 3: Rabbit IgG instead of HA751448 in SK-MEL-28 cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 12 seconds; ECL: K1801

Background References

1. Kasof GM, Gomes BC. Livin, a novel inhibitor of apoptosis protein family member. J Biol Chem. 2001 Feb.
2. Sanna MG, et al. IAP suppression of apoptosis involves distinct mechanisms: the TAK1/JNK1 signaling cascade and caspase inhibition. Mol Cell Biol. 2002 Mar.