Anti-Cathepsin D Antibody [13F4-R] - BSA and Azide free

HA610002

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 45 kDa
Clone number:	13F4-R

Description: The cathepsin family of proteolytic enzymes contains several diverse classes of proteases. The cysteine protease class comprises cathepsins B, L, H, K, S, and O. The aspartyl protease class is composed of cathepsins D and E. Cathepsin G is in the serine protease class. Most cathepsins are lysosomal and each is involved in cellular metabolism, participating in various events such as peptide biosynthesis and protein degradation. Cathepsins may also cleave some protein precursors, thereby releasing regulatory peptides. The promoter region of the cathepsin D gene contains five Sp1 binding sites and four AP-2 binding sites.

Immunogen: Recombinant protein within Human Cathepsin D aa 1-432.

Positive control: MCF7 cell lysate, U-937 cell lysate, SK-Br-3 cell lysate, HepG2 cell lysate, A431 cell lysate, Human liver tissue lysate, human liver tissue, human liver cancer tissue, human breast cancer tissue.

Subcellular location: Lysosome. Melanosome. Secreted, extracellular space.

Database links: SwissProt: P07339 Human

Recommended Dilutions:

WB	1:1,000
IHC-P	1:2,000-1:5,000

Storage Buffer: 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

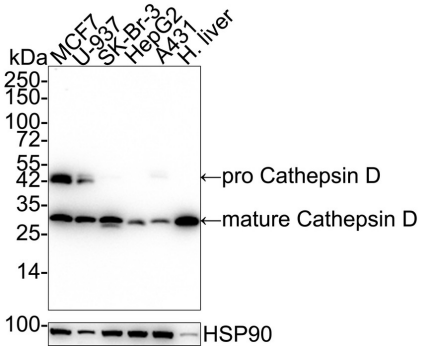

Fig1: Western blot analysis of Cathepsin D on different lysates with Mouse anti-Cathepsin D antibody (HA610002) at 1/1,000 dilution.

Lane 1: MCF7 cell lysate (20 µg/Lane)
Lane 2: U-937 cell lysate (20 µg/Lane)
Lane 3: SK-Br-3 cell lysate (20 µg/Lane)
Lane 4: HepG2 cell lysate (20 µg/Lane)
Lane 5: A431 cell lysate (20 µg/Lane)
Lane 6: Human liver tissue lysate (40 µg/Lane)

Predicted band size: 45 kDa
Observed band size: 45/28 kDa

Exposure time: 25 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 (EM1901-03) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

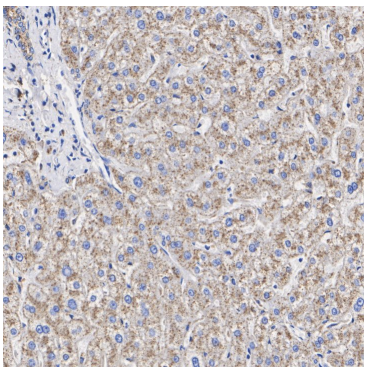

Fig2: Immunohistochemical analysis of paraffin-embedded human liver tissue with Mouse anti-Cathepsin D antibody (HA610002) at 1/5,000 dilution.

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 (EM1901-03) at 1/5,000 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.

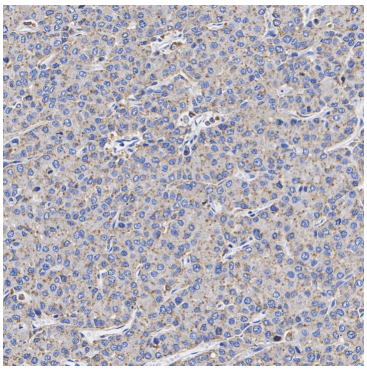

Fig3: Immunohistochemical analysis of paraffin-embedded human liver cancer tissue with Mouse anti-Cathepsin D antibody (HA610002) at 1/2,000 dilution.

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 (EM1901-03) 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.

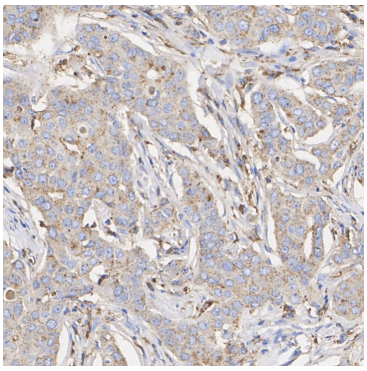

Fig4: Immunohistochemical analysis of paraffin-embedded human breast cancer tissue with Mouse anti-Cathepsin D antibody (HA610002) at 1/5,000 dilution.

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 (EM1901-03) at 1/5,000 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.

Background References

1. Sadleir KR et al. Presynaptic dystrophic neurites surrounding amyloid plaques are sites of microtubule disruption, BACE1 elevation, and increased Aß generation in Alzheimer's disease. Acta Neuropathol 132:235-56 (2016).
2. Santaguida S et al. Aneuploidy-induced cellular stresses limit autophagic degradation. Genes Dev 29:2010-21 (2015).