

Human Cathepsin D antibody

Catalog Number: ACH0627

PRODUCT INFORMATION

Catalog number

ACH0627

Clone No.

4G2

Product type

Monoclonal Antibody

UnitProt No.

P07339

NCBI Accession No.

NP_001900

Alternative Names

CTSD, CPSD, Cathepsin D, Lysosomal aspartyl protease, CLN10, Ceroid-lipofuscinosis, Neuronal 10

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human Cathepsin D (21-412 aa) purified from E. coli

Isotype

IgG2b kappa

Purification Note

By protein-G affinity chromatography

Application

ELISA, WB, IHC

Usage

The antibody has been tested by ELISA, Western blot and IHC analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

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Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

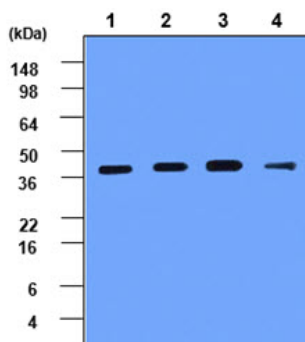
The aspartic protease cathepsin D is one of the major proteolytic enzymes in lysosomes. The cathepsin D gene locates on chromosome 11p15. 5 and spans approximately 11 kb with nine exons. Initially synthesized as an inactive precursor of pro-cathepsin D, the enzyme is subsequently converted to its active forms by proteolytic processing. Breast cancer cells, unlike normal cells, secrete high levels of pro-cathepsin D

General References

- Tang,J. (1979) Mol. Cell. Biochem. 26, 93-109.
- Fujita, H et al., (1991) Biochem. Biophys. Res. Commun. 179, 190-196.
- Fusek, M et al., (2005) Biomed Papers 149, 43-50.
- Garcia,M et al., (1996) Stem Cells 14, 642-650.

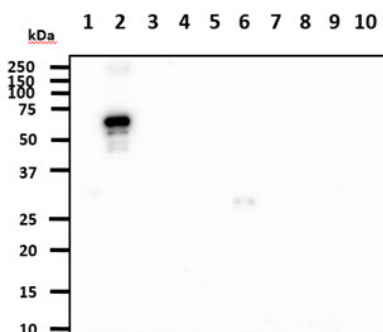
DATA

Western blot analysis (WB)



The cell lysates(40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Cathepsin D antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

- Lane 1.: HepG2 cell lysate
- Lane 2.: Hep3B cell lysate
- Lane 3.: MDA-MB-231 cell lysate
- Lane 4.: MCF7 cell lysate



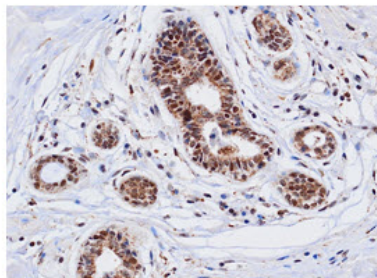
The recombinant proteins (100ng) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Cathepsin D antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

- Lane 1. : Recombinant Human CTSE
- Lane 2. : Recombinant Human CTSD
- Lane 3. : Recombinant Human CTSE
- Lane 4. : Recombinant Human CTSE
- Lane 5. : Recombinant Human CTSH
- Lane 6. : Recombinant Human CTSK
- Lane 7. : Recombinant Human CTSL
- Lane 8. : Recombinant Human CTSS
- Lane 9. : Recombinant Human CTSW
- Lane 10. : Recombinant Human CTSZ

Immunohistochemistry (IHC)

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Human breast lobule

Paraffin embedded sections of human breast lobule tissue were incubated with anti-human Cathepsin D (1:50) for 2 hours at room temperature. Antigen retrieval was performed in 0.1M sodium citrate buffer and detected using Diaminobenzidine (DAB)