For Research Use Only

Cathepsin D Monoclonal antibody

Catalog Number:66534-1-Ig Featured Product 8 Publications

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Basic Information

Catalog Number:
66534-1-Ig

Size:
150ul , Concentration: 1000 μg/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG2b

Immunogen Catalog Number:
AG15254

GenBank Accession Number:
BC016320

GeneID (NCBI):
1509

UNIPROT ID:
P07339

Full Name:
cathepsin D

Calculated MW:
412 aa, 45 kDa

Observed MW:
32 kDa, 48 kDa, 52 kDa

Purification Method:
Protein A purification

CloneNo.:
2F6F7

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:500-1:2000
IF/ICC 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human

Cited Species:
human, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : Saos-2 cells, MCF-7 cells, T-47D cells, HepG2 cells

IHC : human liver cancer tissue, human breast cancer tissue

IF/ICC : HepG2 cells,

Background Information

CTSD (Cathepsin D) also named CPSD, belongs to the peptidase A1 family. It is ubiquitously expressed and is involved in proteolytic degradation, cell invasion, and apoptosis. Human CTSD is synthesized as a 52-kDa precursor that is converted into an active 48-kDa single-chain intermediate in the endosomes, and then into a fully active mature form, composed of a 34-kDa heavy chain and a 14-kDa light chain, in the lysosomes. It is a lysosomal acid protease found in neutrophils and monocytes and involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease (PMID: 27114232, PMID: 30717773, PMID: 30051532).

Notable Publications

Author	Pubmed ID	Journal	Application
Zhiyuan Wu	34575099	Life (Basel)	WB,IF
Hualin Fu	36448495	FEBS Lett	IF
Peipei Ding	35649359	Cell Rep	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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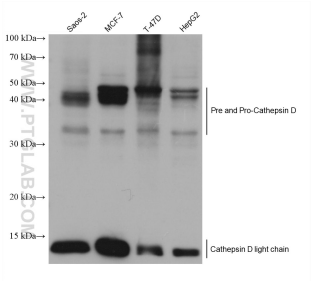
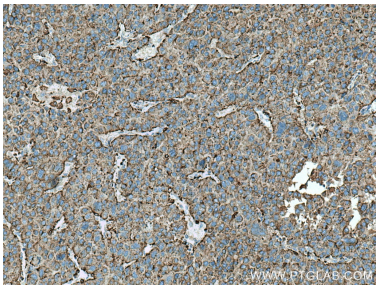
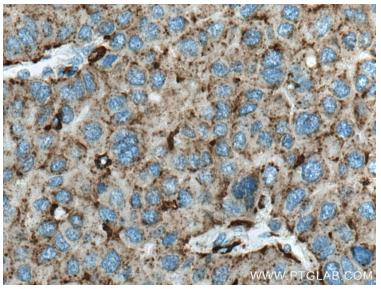
Selected Validation Data



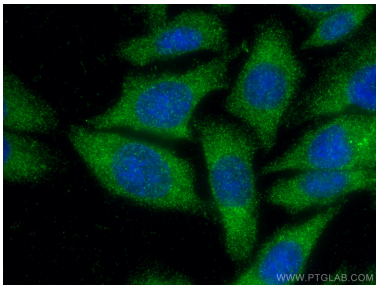
Various lysates were subjected to SDS PAGE followed by western blot with 66534-1-Ig (Cathepsin D antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



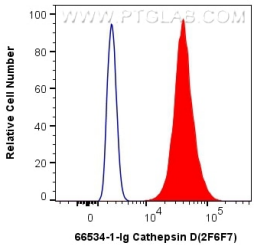
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66534-1-Ig (Cathepsin D antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66534-1-Ig (Cathepsin D antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using Cathepsin D antibody (66534-1-Ig, Clone: 2F6F7) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



1X10^6 HepG2 cells were intracellularly stained with 0.4 ug Anti-Human Cathepsin D (66534-1-Ig, Clone:2F6F7) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG2b Isotype Control (MPC-11) (65128-1-Ig, Clone: MPC-11) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).

Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66534-1-Ig (Cathepsin D antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).