

For Research Use Only

Calpastatin Recombinant monoclonal antibody

Catalog Number: 86664-3-RR



Basic Information

Catalog Number: 86664-3-RR	GenBank Accession Number: BC013579	Purification Method: Protein A purification
Source: Rabbit	GeneID (NCBI): 831	CloneNo.: 251652G2
Isotype: IgG	UNIPROT ID: P20810	Recommended Dilutions: WB: 1:5000-1:50000 IHC: 1:500-1:2000 IF/ICC: 1:200-1:800
Immunogen Catalog Number: AG2897	Full Name: calpastatin Calculated MW: 667 aa, 72 kDa Observed MW: 110-130 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Species Specificity:
human

**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 : HeLa cells, K-562 cells, MDA-MB-231 cells, A549 cells, HaCaT cells

IHC : human heart tissue,

IF/ICC : HeLa cells,

Background Information

Calpastatin (CAST) is an endogenous protein that specifically inhibits the activity of calpains, a family of calcium-dependent proteases involved in numerous cellular processes. The CAST gene encodes calpastatin, which contains multiple calpain-inhibiting domains that bind to the active site of calpain, preventing it from performing its functions. Calpastatin is found in the cytosol and plays a key role in regulating intracellular proteolysis, with malfunctions in the calpain-calpastatin system linked to various diseases, including autoimmune disorders and neurodegenerative conditions.

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

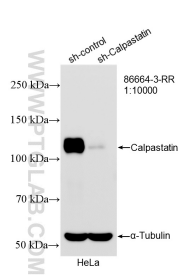
T: 4006900926

E: Proteintech-CN@ptglab.com

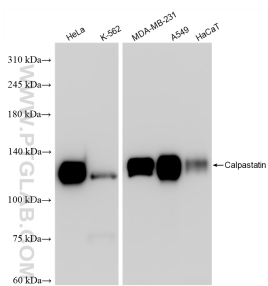
W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

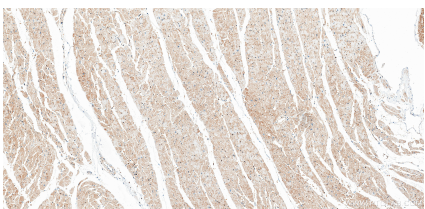
Selected Validation Data



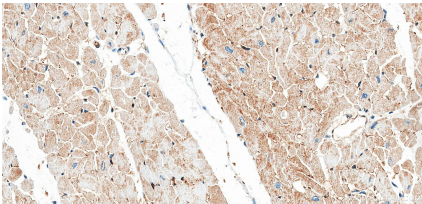
WB result of Calpastatin antibody (86664-3-RR; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Calpastatin transfected HeLa cells.



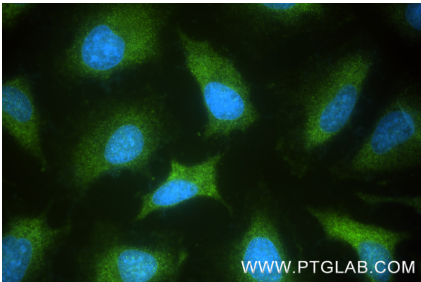
Various lysates were subjected to SDS PAGE followed by western blot with 86664-3-RR (CAST antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



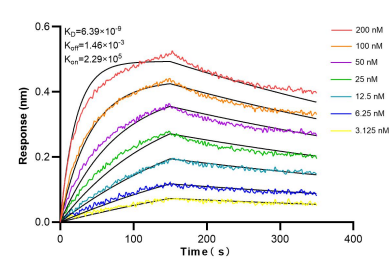
Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 86664-3-RR (Calpastatin antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 86664-3-RR (Calpastatin 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 HeLa cells using Calpastatin antibody (86664-3-RR, Clone: 251652G2) at dilution of 1:400 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Bilayer interferometry (BLI) kinetic assays of 86664-3-RR against Human Calpastatin were performed. The affinity constant is 6.39 nM.