

Calpastatin Rabbit pAb

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Catalog # AP52156

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P20810
Reactivity	Human
Predicted	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	76573
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Calpastatin
Epitope Specificity	431-530/708
Isotype	IgG
Purity	affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Important Note This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions Calpains are nonlysosomal, calcium-activated intracellular cysteine proteases that mediate specific Ca²⁺-dependent processes including cell fusion, mitosis and meiosis. Calpains are heterodimers of a small regulatory subunit and one of three large catalytic subunits, designated Calpain 1, Calpain 2 and Calpain p94. Calpain 1 is an intracellular calcium-dependent protease that cleaves cytoskeletal and submembranous proteins. Calpain-1 co-localizes with human leukocyte antigen-DR (HLA-DR) on activated microglia in the aging brain. Calpain influences the process of spermatogenesis and the events preceding fertilization, such as the acrosome reaction. Calpastatin regulates Calpain by inhibiting both the proteolytic activity of Calpain and its binding to membranes. Calpastatin exists in two types, tissue type and erythrocyte type, resulting from both alternative splicing and proteolytic processing.

Additional Information

Gene ID	831
Other Names	Calpastatin, Calpain inhibitor, Sperm BS-17 component, CAST
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CAST
Function	Specific inhibition of calpain (calcium-dependent cysteine protease). Plays a key role in postmortem tenderization of meat and have been proposed to be involved in muscle protein degradation in living tissue.

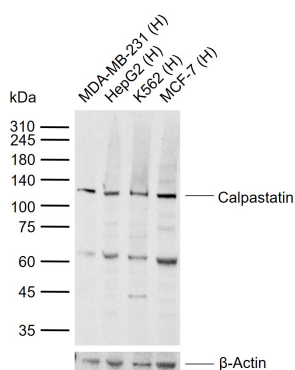
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References

Asada K.,et al.J. Enzym. Inhib. 3:49-56(1989).
Zhu H.,et al.Acta Pharmacol. Sin. 23:450-454(2002).
Kalnine N.,et al.Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
Schmutz J.,et al.Nature 431:268-274(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

Images



Sample:

Lane 1: Human MDA-MB-231 cell lysates

Lane 2: Human HepG2 cell lysates

Lane 3: Human K562 cell lysates

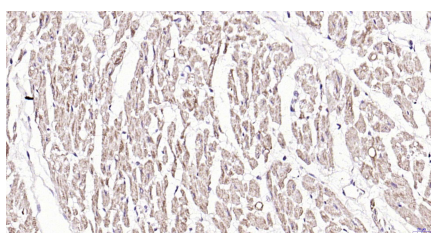
Lane 4: Human MCF-7 cell lysates

Primary: Anti-Calpastatin (AP52156) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 70 kDa

Observed band size: 120 kDa



Paraformaldehyde-fixed, paraffin embedded Human Heart; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Calpastatin Polyclonal Antibody, Unconjugated (AP52156) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.