

Datasheet for ABIN4886503
anti-Calpastatin antibody (Middle Region)



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Overview

Quantity:	100 µg
Target:	Calpastatin (CAST)
Binding Specificity:	AA 275-310, Middle Region
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Calpastatin antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Calpastatin(CAST) detection. Tested with WB, IHC-P in Human.
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human Calpastatin (275-310aa QEKKRKVEKDTMSDQALEALSASLGTRQAEPELDLR), different from the related mouse sequence by fifteen amino acids, and from the related rat sequence by eleven amino acids.
Sequence:	QEKKRKVEKD TMSDQALEAL SASLGTRQAE PELDLR
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Calpastatin(CAST) detection. Tested with WB, IHC-P in Human.

Product Details

	Gene Name: calpastatin
	Protein Name: Calpastatin
Purification:	Immunogen affinity purified.

Target Details

Target:	Calpastatin (CAST)
Alternative Name:	CAST (CAST Products)
Background:	<p>Calpastatin is a protein that in humans is encoded by the CAST gene. It is mapped to 5q15. The protein encoded by this gene is an endogenous calpain (calcium-dependent cysteine protease) inhibitor. It consists of an N-terminal domain L and four repetitive calpain-inhibition domains (domains 1-4), and it is involved in the proteolysis of amyloid precursor protein. The calpain/calpastatin system is involved in numerous membrane fusion events, such as neural vesicle exocytosis and platelet and red-cell aggregation. The encoded protein is also thought to affect the expression levels of genes encoding structural or regulatory proteins. Alternatively spliced transcript variants encoding different isoforms have been described.</p> <p>Synonyms: BS 17 Calpain inhibitor Calpastatin Cast PLACK Sperm BS 17 component Sperm BS-17 component P20810</p>
Gene ID:	831
UniProt:	P20810

Application Details

Application Notes:	<p>WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human</p> <p>IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.</p> <p>Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.</p>
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

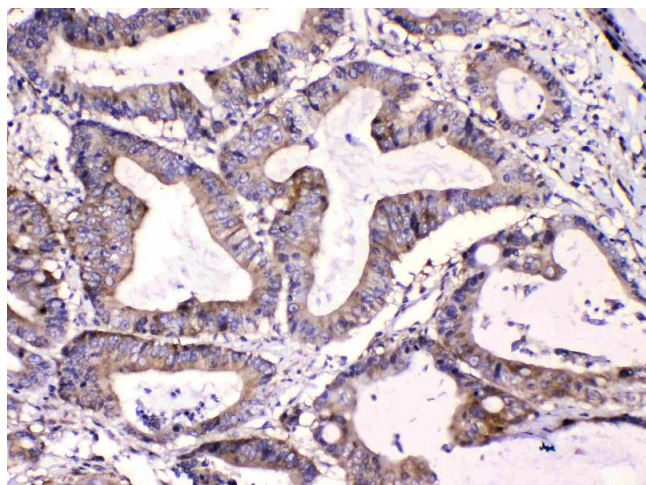
Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C/-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Images



Western Blotting

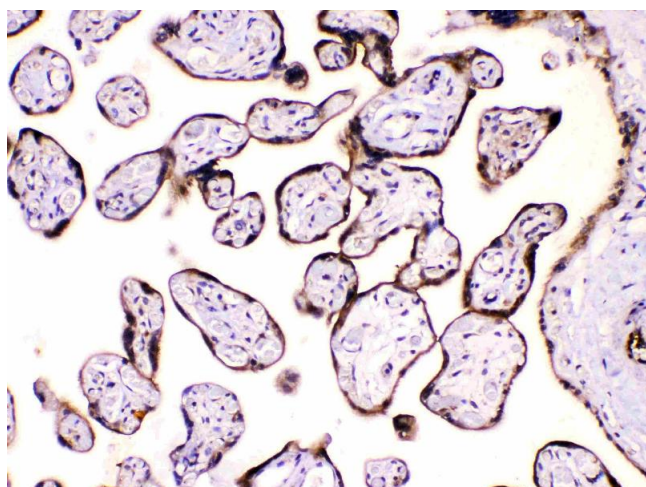
Image 1. Western blot analysis of Calpastatin using anti-Calpastatin antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: COLO320 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Calpastatin antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002)



with Tanon 5200 system. A specific band was detected for Calpastatin at approximately 100KD. The expected band size for Calpastatin is at 76KD.

Immunohistochemistry

Image 2. IHC analysis of Calpastatin using anti-Calpastatin antibody . Calpastatin was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Calpastatin Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Immunohistochemistry

Image 3. IHC analysis of Calpastatin using anti-Calpastatin antibody . Calpastatin was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Calpastatin Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.