

Rabbit anti-Human Calpastatin Polyclonal Antibody | anti-CAST antibody

Anti-Calpastatin Antibody

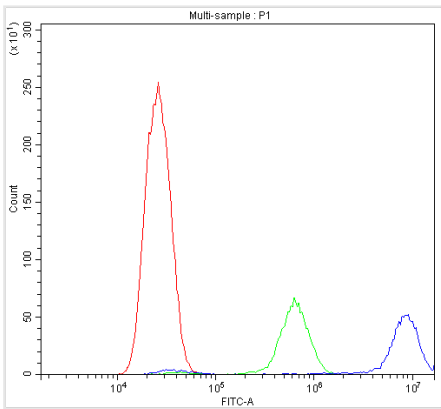
CATALOG # AAA11679	HOST Rabbit	REACTIVITY Human	APPLICATIONS Western Blot, Immunohistochemistry
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PRODUCT SYNONYMS

Calpastatin; Polyclonal Antibody; Anti-Calpastatin Antibody; BS 17; Calpain inhibitor; Cast; PLACK; Sperm BS 17 component; Sperm BS-17 component; P20810; anti-CAST antibody

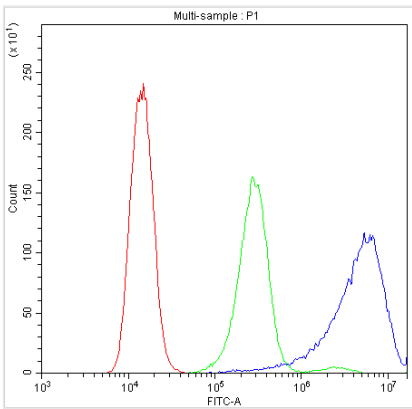
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Sequence Length	750
Applicable Applications for anti-CAST antibody	WB (Western Blot), IHC (Immunohistochemistry)
Application Notes	Western Blot: 0.1-0.5ug/ml Immunohistochemistry(IHC) Paraffin: 0.5-1ug/ml
Notes	Tested Species: In-house tested species with positive results. By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections. Other applications have not been tested.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
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.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



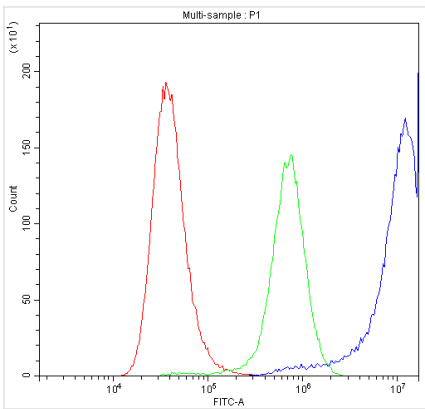
FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of U2OS cells using anti-Calpastatin antibody (AAA11679).Overlay histogram showing U2OS cells stained with AAA11679 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Calpastatin Antibody (AAA11679,1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight @488 conjugated goat anti-rabbit IgG (5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



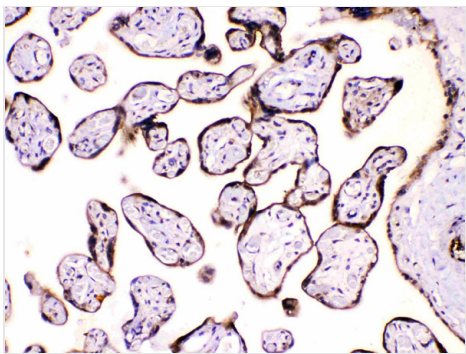
FCM (Flow Cytometry)

Figure 5. Flow Cytometry analysis of A431 cells using anti-Calpastatin antibody (AAA11679).Overlay histogram showing A431 cells stained with AAA11679 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Calpastatin Antibody (AAA11679,1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight @488 conjugated goat anti-rabbit IgG (5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



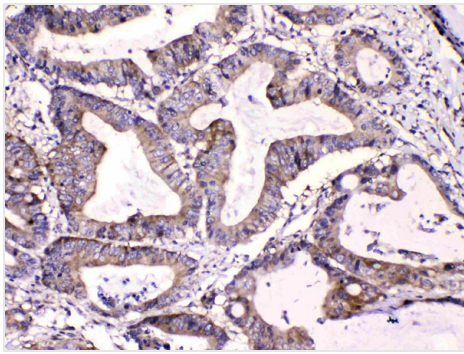
FCM (Flow Cytometry)

Figure 4. Flow Cytometry analysis of A549 cells using anti-Calpastatin antibody (AAA11679).Overlay histogram showing A549 cells stained with AAA11679 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Calpastatin Antibody (AAA11679,1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight @488 conjugated goat anti-rabbit IgG (5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



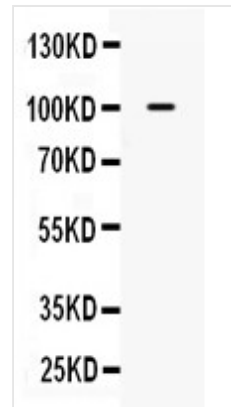
IHC (Immunohistochemistry)

Figure 3. IHC analysis of Calpastatin using anti-Calpastatin antibody (AAA11679). 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 1ug/ml rabbit anti-Calpastatin Antibody (AAA11679) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Calpastatin using anti-Calpastatin antibody (AAA11679). 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 1ug/ml rabbit anti-Calpastatin Antibody (AAA11679) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of Calpastatin using anti-Calpastatin antibody (AAA11679). 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 at 0.5ug/mL overnight at 4 degree 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 with Tanon 5200 system. A specific band was detected for Calpastatin at approximately 100KD. The expected band size for Calpastatin is at 76KD.

ADDITIONAL INFORMATION

Related Product Information for anti-CAST antibody	Rabbit IgG polyclonal antibody for Calpastatin(CAST) detection. Background: 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.
References	1. Aversa M, De Tullio R, Capini P, Salamino F, Pontremoli S, Melloni E (Dec 2003). "Changes in calpastatin localization and expression during calpain activation: a new mechanism for the regulation of intracellular Ca(2+)-dependent proteolysis". <i>Cell Mol Life Sci.</i> 60 (12): 2669-78. 2. Ma H, Yang HQ, Takano E, Lee WJ, Hatanaka M, Maki M (Sep 1993). "Requirement of different subdomains of calpastatin for calpain inhibition and for binding to calmodulin-like domains". <i>J Biochem.</i> 113 (5): 591-9. 3. Raynaud P, Jayat-Vignoles C, Laforet MP, Leveziel H, Amarger V (Apr 2005). "Four promoters direct expression of the calpastatin gene". <i>Arch Biochem Biophys.</i> 437 (1): 69-77.

NCBI AND UNIPROT INFORMATION

NCBI GI #	109637759
NCBI GeneID	831
NCBI Accession #	NP_001035905.1
NCBI GenBank Nucleotide #	NM_001042440.4
UniProt Accession #	P20810; O95360; Q05DE8; Q7Z4K0; Q96D08; Q9H1Z5; B7Z468; G5E946; G5E9D3
Molecular Weight	82,437 Da
NCBI Official Full Name	calpastatin isoform f
NCBI Official Synonym Full Names	calpastatin
NCBI Official Symbol	CAST

NCBI Official Synonym Symbols	BS-17; PLACK
NCBI Protein Information	calpastatin
UniProt Protein Name	Calpastatin
UniProt Gene Name	CAST

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/calpastatin-antibody-western-blot-immunohistochemistry-elisa/11679>