

Mouse anti-Human Calpastatin Monoclonal Antibody | anti-CAST antibody

Calpastatin

CATALOG # AAA23940	HOST Mouse	REACTIVITY Human	APPLICATIONS ELISA, Immunohistochemistry
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PRODUCT SYNONYMS

Calpastatin; Monoclonal Antibody; BS 17; Calpain inhibitor; Cast; Heart type calpastatin; Sperm BS 17 component; anti-CAST antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1, kappa
Clone Number	CAST/1550
Specificity	Calpastatin is an intracellular calcium-dependent protease that cleaves cytoskeletal and sub-membranous proteins. Calpains are non-lysosomal, calcium-activated intracellular cysteine proteases. Calpains mediate specific Ca ²⁺ -dependent processes including cell fusion, mitosis and meiosis. Calpains are heterodimers of a small regulatory subunit and one of three large catalytic subunits, designated Calpastatin, Calpain 2 and Calpain p94. 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. Calpastatin 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.
Purity/Purification	Purified Ab with BSA and Azide at 200ug/ml OR Purified Ab WITHOUT BSA and Azide at 1.0mg/ml
Form/Format	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Sequence Length	708
Applicable Applications for anti-CAST antibody	ELISA, IHC (Immunohistochemistry)
Application Notes	ELISA: Use Ab at 2-4ug/ml for coating (Order Ab without BSA) Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT) (Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes)
Positive Control	HeLa cells. Esophagus or Small Intestine.
Immunogen	Recombinant full-length human CAST protein
Cellular Localization	Cytoplasm and Cell Surface
Hu-chromosome Location	5q15
Preparation and Storage	Antibody with azide: store at 2 to 8 degree C. Antibody without azide: store at -20 to -80 degree C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

IMAGES



SDS-PAGE
SDS-PAGE Analysis Purified Calpastatin Mouse Monoclonal Antibody (CAST/1550).
Confirmation of Integrity and Purity of Antibody.



IHC (Immunohistochemistry)
Formalin-fixed, paraffin-embedded human Tonsil stained with Calpastatin Mouse Monoclonal Antibody (CAST/1550).



IHC (Immunohistochemistry)
Formalin-fixed, paraffin-embedded human Bladder Carcinoma stained with Calpastatin Mouse Monoclonal Antibody (CAST/1550).



IHC (Immunohistochemistry)
Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with Calpastatin Mouse Monoclonal Antibody (CAST/1550).



IHC (Immunohistochemistry)
Formalin-fixed, paraffin-embedded human Prostate Carcinoma stained with Calpastatin Mouse Monoclonal Antibody (CAST/1550).



IHC (Immunohistochemistry)
Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with Calpastatin Mouse Monoclonal Antibody (CAST/1550).

ADDITIONAL INFORMATION

References	Murachi, T. 1984. Calcium-dependent proteinases and specific inhibitors: calpain and calpastatin. Biochem. Soc. Symp. 45: 149-167.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	126302556
NCBI GeneID	831
UniProt Accession #	P20810
Molecular Weight	126kDa
NCBI Official Full Name	Calpastatin
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
UniProt Entry Name	ICAL_HUMAN

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.