

Recombinant Human CAST

Cat. No. CAST-27403TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length corresponding to amino acids 1-686 of Human Calpastatin with a proprietary tag; predicted MWt 101.3kDa inclusive of tag.
Species	Human
Source	Wheat Germ
ProteinLength	686 amino acids
Description	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.
Molecular Weight	101.530kDa inclusive of tags
Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.31% Glutathione, 0.79% Tris HCl

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Storage Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.

Sequences of amino acids

MNPTETKAVKTEPEKKSQSTKLSVVHEKKSQEGKPKHEHTEPKSLPKQASDTGSNDA
 HNKKAVSRSAEQQPSEKSTEPKTKPQDMISAGGESVAGITAISGKPGDKKKEKKS
 LTPAVPVESKPKPSGKSGMDAALDDLIDTLGGPEETEEENTTYTGPEVSDPMSSTYIE
 ELGKREVTIPPKYRELLAKKEGITGPPADSSKPIGPDDAIDALSSDFTCGSPTAAGKK
 TEKEESTEVLKAQSAGTVRSAAPPQEKKRKVEKDTMSDQALEALSASLGTRQAEPE
 LDLRSIKEVDEAKAKEEKLEKCGEDDETIPSEYRLKPATDKDGKPLLPEPEEKPKPRS
 ESELIDELSEDFDRSECKEKPSKPTKTEESKAAAPAPVSEAVCRTSMCSIQSAPPE
 PATLKGTVPDDAVEALADSLGKKEADPEDGKPVMDKVKEKAKEEDREKLGEKEETI
 PPDYRLEEVDKDKGKPLLKESKEQLPPMSEDFLLDALSEDFSGPQNASSLKFEDA
 KLAAAISEVVSQTPASTTQAGAPPRDTSQSDKDLDDALDKLSDSLGQRQPDNDENK
 PMEDKVKEKAKAEHRDKLGERDDTIPPEYRHLLDDNGQDKPVKPPTKKSEDSKPKPA
 DDQDPIDALSGDLDCPSTTETSQNTAKDKCKKAASSSKAPKNGGKAKDSAKTTEE
 TSKPKDD

Sequence Similarities Belongs to the protease inhibitor I27 (calpastatin) family.

GENE INFORMATION

Gene Name [CAST calpastatin \[Homo sapiens \]](#)

Official Symbol [CAST](#)

Synonyms CAST; calpastatin;

Gene ID [831](#)

mRNA Refseq [NM_001042440](#)

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Protein Refseq	NP_001035905
MIM	114090
Uniprot ID	P20810
Chromosome Location	5q14-q22
Function	calcium-dependent cysteine-type endopeptidase inhibitor activity; endopeptidase inhibitor activity; protein binding;

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