

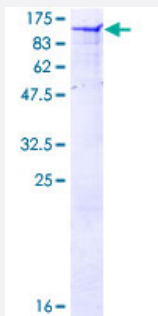
Full-Length

CAST (Human) Recombinant Protein (P01)

Catalog # H00000831-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human CAST full-length ORF (NP_775083.1, 1 a.a. - 686 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MNPTETKAVKTEPEKKSQSTKLSVVHEKKSQEGKPKEHTEPKSLPKQASDTGSNDAHNNKAVS
RSAEQQPSEKSTEPKTKPQDMISAGGESVAGITAGSKPGDKKKEKSLTPAVPVESKPDKPSG
KSGMDAALDDLIDTLGGPEETEEENTTYTGPEVSDPMSSTYIEELGKREVTIPPKYRELLAKKEGIT
GPPADSSKPIGPDDAIDALSSDFTCGSPTAAGKKTEKEESTEV LKAQSAGTVRSAAPPQEKKRK
VEKDTMSDQALEALSASLGTRQAEPELDLRSIKEVDEAKAKEEKLKCGEDDETIPSEYRLKPAT
DKDGKPLLPEPEEKPKPRSESELIDELSEDFRSECKEKPSKPTKTEESKAAAPAPVSEAVCR
TSMCSIQSAPPEPATLKGTVPDDAVEALADSLGKKEADPEDGKPVMDKV/KEKAKEEDREKLGE
KEETIPPDYRLEEVKDKDGKPLLPKESKEQLPPMSEDFLLDALSEDFSGPQNASSLKFEAKLA
AAISEVVSQTPASTTQAGAPPRDTSQSDKDLDDALDKLSDSLGQRQPDENKPMEDKVKEKA
KAEHRDKLGERDDTIPPEYRHLLDDNGQDKPVKPPTKKSEDSKKPADDQDPIDALSGDLDSGPS
TTETSQNTAKDKCKKAASSSKAPKNGGKAKDSAKTTEETSKPKDD

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

100.5

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — CAST

Entrez GeneID	831
GeneBank Accession#	NM_173060.2
Protein Accession#	NP_775083.1
Gene Name	CAST
Gene Alias	BS-17, MGC9402
Gene Description	calpastatin
Omim ID	114090
Gene Ontology	Hyperlink
Gene Summary	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. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of only some have been determined. [provided by RefSeq]
Other Designations	OTTHUMP00000158519 OTTHUMP00000158520 calpain inhibitor heart-type calpastatin sperm BS-17 component

Publication Reference

- [Mitofusin 2 Regulates Axonal Transport of Calpastatin to Prevent Neuromuscular Synaptic Elimination in Skeletal Muscles.](#)

Luwen Wang, Ju Gao, Jingyi Liu, Sandra L Siedlak, Sandy Torres, Hisashi Fujioka, Mikayla L Huntley, Yinfei Jiang, Haiyan Ji, Tingxiang Yan, Micah Harland, Pichet Termsarasab, Sophia Zeng, Zhen Jiang, Jingjing Liang, George Perry, Charles Hoppel, Cheng Zhang, Hu Li, Xinglong Wang.

Cell Metabolism 2018 Sep; 28(3):400.

Application: Func, IF, Mouse, Antibody, Mouse muscle

Disease

- [Alzheimer disease](#)
- [Cardiovascular Diseases](#)
- [Diabetes Mellitus](#)
- [Edema](#)
- [Hypertension](#)
- [Multiple Sclerosis](#)
- [Obesity](#)
- [Parkinson disease](#)
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