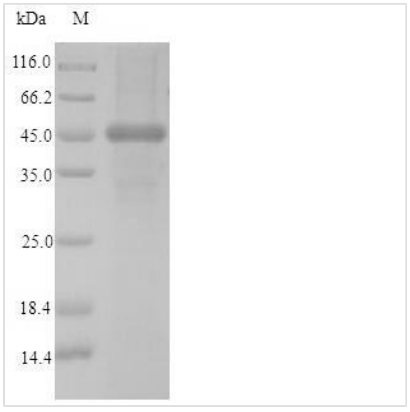
Recombinant Human Calponin-2 (CNN2)

Product Code	CSB-EP860764HU
Relevance	Thin filament-associated protein that is implicated in the regulation and modulation of smooth muscle contraction. It is capable of binding to actin, calmodulin, troponin C and tropomyosin. The interaction of calponin with actin inhibits the actomyosin Mg-ATPase activity.
Abbreviation	Recombinant Human CNN2 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q99439
Alias	Calponin H2, smooth muscle Neutral calponin
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	SSTQFNKGPSYGLSAEVKNRLLSKYDPQKEAELRTWIEGLTGLSIGPDFQKGL KDGTILCTLMNKLQPGSVPKINRSMQNWHQLENLSNFIKAMVSYGMNPVDLFE ANDLFESGNMTQVQVSLLALAGKAKTKGLQSGVDIGVKYSEKQERNFDDATM KAGQCVIGLQMGTNKCASQSGMTAYGTRRHLYDPKNHILPPMDHSTISLQMG TNKCASQVGMTAPGTRRHIYDTKLGTDKCDNSSMSLQMGYTQGANQSGQVF GLGRQIYDPKYCPQGTVADGAPSGTGDCPDPGEVPEYPPYYQEEAGY
Research Area	Signal Transduction
Source	E.coli
Target Names	CNN2
Protein Names	Recommended name: Calponin-2 Alternative name(s): Calponin H2, smooth muscle Neutral calponin
Expression Region	2-309aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	49.6kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant Human CNN2 was expressed with the amino acid range of 2-309. This CNN2 protein is expected to have a theoretical molecular weight of 49.6 kDa. This CNN2 recombinant protein is manufactured in e.coli. The N-terminal 6xHis-SUMO tag was fused into the coding gene segment of CNN2, making it easier to detect and purify the CNN2 recombinant protein in the later stages of expression and purification.

Human Calponin-2 (CNN2) is a cytoskeletal protein belonging to the calponin family, involved in the regulation of smooth muscle contraction and actin cytoskeleton organization. Encoded by the CNN2 gene, it is primarily expressed in smooth muscle tissues, such as those in the uterus, intestine, and vascular walls. CNN2 interacts with actin and calmodulin, influencing actin-myosin dynamics. Its role in smooth muscle contraction suggests implications in physiological processes like vascular tone and uterine contractions. Additionally, CNN2 has been associated with various diseases, including cancer, where its altered expression may contribute to tumor progression. The study of human CNN2 contributes to understanding smooth muscle function, cytoskeletal regulation, and its potential relevance in disease mechanisms.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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