

# Recombinant Human CNN1 protein (His tag)

Catalog Number:PDEH100414



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

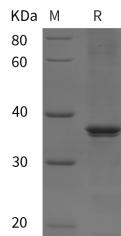
## Description

<b>Synonyms</b>	Calponin-1;CNN1;Calponin H1;smooth muscle
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Met 1-Ala 297
<b>Accession</b>	P51911
<b>Calculated Molecular Weight</b>	32.6 kDa
<b>Observed molecular weight</b>	35 kDa
<b>Tag</b>	N-His

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	Please contact us for more information.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

CNN-1 (Calponin 1 [calcium and calmodulin-binding troponin T-like protein]; also Calponin basic, CaP and Calponin H1) is a 32-36 kDa cytoplasmic member of the calponin family of proteins. Although reportedly expressed in fibroblasts and endothelial cells, it actually appears to be restricted to smooth muscle and smooth muscle-like cells such as myoepithelium and myofibroblasts in the adult. CNN-1 interacts with F-actin in a phosphorylation-dependent manner. When nonphosphorylated, CNN-1 blocks actomyosin ATPase activity, contributing to the stabilization of actin stress fiber bundles. Thus, CNN-1 expression inhibits cell motility and the formation of podosomes. Human CNN-1 is 297 amino acids (aa) in length. It contains one CH/calponin homology domain (aa 30-127), and three consecutive calponin-like repeats (aa 164-268). The repeats are suggested to mediate actin binding. There are five potential Ser/Thr

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phosphorylation sites. Full-length human CNN-1 shares 97% aa sequence identity with mouse CNN-1.

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