Recombinant CALM2 protein (His tag)

Catalog Number	546737
Species	Human
Expression System	E. coli
Accession	P0DP24
Molecular Weight	Predictes a molecular mass of 18.36 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	2-149
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 2-149 aa (P0DP24) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Calmodulin-2 (CALM2) Fragment (residues 2-149) is a high-purity protein encompassing all four EF-hand calcium-binding domains. This fragment serves as an essential tool for studying calcium signal transduction pathways, enabling researchers to investigate enzyme regulation, ion channel activity, and centrosome cycle progression with precision. Calmodulin-2 is a key calcium-binding protein in Homo sapiens that mediates calcium signal transduction by controlling numerous enzymes, ion channels, and other proteins. It activates protein kinases like calmodulin-dependent protein kinase type II and phosphatases upon calcium binding, and it regulates the centrosome cycle and cytokinesis in conjunction with partners such as CCP110 and centrin. Additionally, it mediates calcium-dependent inactivation of CACNA1C and enhances potassium channel activity of KCNN2. During interphase, it is distributed throughout the cytoplasm but localizes to spindle poles and microtubules during mitosis, highlighting its role in cell division. This recombinant fragment, spanning residues 2-149, includes all functional EF-hand domains, making it ideal for dissecting calcium-mediated mechanisms in cellular processes.