Recombinant CABP5 protein (His tag)

Catalog Number	548312
Synonyms	CaBP5
Species	Human
Expression System	E. coli
Accession	Q9NP86
Molecular Weight	Predictes a molecular mass of 21.48 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	1-173
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-173 aa (Q9NP86) 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 Calcium-binding protein 5 (CaBP5) fragment (amino acids 1-173) is a high-purity protein designed for studying calcium signaling and neuronal function. This fragment includes all four EF-hand domains, making it an ideal tool for investigating calcium-dependent inactivation of L-type calcium channels, neurotransmitter vesicle dynamics, and neurite organization. Calcium-binding protein 5 (CaBP5), encoded by the CABP5 gene in humans, plays crucial roles in calcium signaling and neuronal processes. It inhibits calcium-dependent inactivation of L-type calcium channels and modulates their voltage dependence of activation. The protein is involved in light signal transmission and may positively regulate both neurotransmitter vesicle endocytosis and exocytosis in a salt-dependent manner. Additionally, CaBP5 contributes to neurite extension and network organization. Located in the cytoplasm, this protein serves as an important regulator of calcium-mediated cellular functions in neuronal systems.