Recombinant CABP2 protein (His tag)

Catalog Number	541318
Synonyms	CaBP2
Species	Human
Expression System	E. coli
Accession	Q9NPB3
Molecular Weight	Predictes a molecular mass of 18.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	73-220
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 73-220 aa (Q9NPB3) 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 2 (CaBP2) fragment (residues 73-220) is a high-purity protein designed for studying the EF-hand domains critical for calcium binding and modulation of voltage-gated calcium channels. This fragment is an essential tool for investigating auditory and visual signal transduction mechanisms. Calcium-binding protein 2 (CaBP2), encoded by the CABP2 gene in humans, is required for sound encoding at inner hair cell synapses, primarily by inhibiting the inactivation of voltage-gated calcium channel Cav1.3. It also plays a role in the normal transfer of light signals through the retina. The protein localizes to the cytoplasm (perinuclear region), cell membrane (cytoplasmic side, lipid-anchored), and Golgi apparatus, indicating its involvement in calcium-dependent signaling pathways at multiple cellular sites. The provided fragment spans residues 73-220, encompassing all four EF-hand domains, enabling focused research on calcium-binding functionality and channel regulation.