Recombinant CLAP2 protein (His tag)

Catalog Number	541845
Synonyms	Cytoplasmic linker-associated protein 2; Protein Orbit homolog 2; hOrbit2
Species	Human
Expression System	E. coli
Accession	O75122
Molecular Weight	Predictes a molecular mass of 28.78 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	67-306
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 67-306 aa (O75122) 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 CLIP-associating protein 2 (CLASP2) fragment (residues 67-306) is a high-purity, stable protein designed for structural and biochemical studies. This 240-amino acid fragment retains key solubility properties, making it ideal for investigating microtubule dynamics and stabilization mechanisms in cellular processes. CLASP2 is a microtubule plus-end tracking protein that stabilizes dynamic microtubules and promotes nucleation of noncentrosomal microtubules from the trans-Golgi network. It plays critical roles in cell polarization during migration by enhancing microtubule rescue at the cell cortex through interactions with ERC1 and PHLDB2, and ensures proper chromosome alignment during mitosis through kinetochore stabilization. The protein localizes to multiple cellular compartments including the cytoskeleton, centrosomes, kinetochores, mitotic spindle, Golgi apparatus, and cell cortex, with its cortical localization regulated by phosphatidylinositol 3-kinase signaling and the MEMO1-RHOA-DIAPH1 pathway.