Recombinant GPR2 protein (His tag)

Catalog Number	533899
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q03569
Gene ID	176318
Molecular Weight	Predictes a molecular mass of 43.36 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	1-361
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 1-361 aa (Q03569) 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 G-protein regulator 2 (GPR-2) fragment (residues 1-361) from Caenorhabditis elegans, engineered for high stability and solubility. This fragment is ideal for investigating spindle dynamics, asymmetric cell division, and G-protein signaling mechanisms in early embryonic development. G-protein regulator 2 (GPR-2), encoded by the gpr-2 gene in C. elegans, functions in the 1-cell embryo alongside GPR-1 to regulate nuclear rotation and spindle elongation during mitosis. It forms a complex with LIN-5 and GPR-1, activating G-protein signaling to modulate mitotic spindle forces, which are asymmetrically distributed under the control of polarity determinants (PAR proteins). Subcellularly, GPR-2 localizes to the cytoplasm, cell cortex, and spindle apparatus, with dynamic cortical distribution during embryogenesis—showing uniform localization in prophase to metaphase and posterior enrichment in anaphase. This localization is regulated by CSNK-1-mediated pathways and is critical for spindle positioning and cell fate determination, particularly at contact sites like EMS-P2 during prophase to prometaphase.