Recombinant GDIR1 protein (His tag)

Catalog Number	540037
Synonyms	Rho GDI 1; Rho-GDI alpha
Species	Human
Expression System	E. coli
Accession	P52565
Molecular Weight	Predictes a molecular mass of 24.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	2-204
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 2-204 aa (P52565) 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 Rho GDP-dissociation inhibitor 1 (Rho GDI 1), a highly purified fragment (amino acids 2-204) from Homo sapiens, designed for robust structural and biochemical studies. This soluble, stable protein unit enables researchers to investigate the regulation of Rho GTPase homeostasis and its implications in cellular dynamics. Rho GDP-dissociation inhibitor 1 (Rho GDI 1), encoded by the ARHGDIA gene, plays a critical role in controlling Rho protein homeostasis by inhibiting GDP dissociation and GTP binding, thereby maintaining Rho proteins like CDC42, RAC1, and RHOA in an inactive cytosolic state. It protects these proteins from degradation, facilitates their recycling and distribution within the cell, and contributes to cell motility regulation. In glioma cells, Rho GDI 1 inhibits migration and invasion by mediating signals that inactivate RAC1. The protein is localized in the cytoplasm, underscoring its involvement in cytosolic regulatory mechanisms.