Recombinant GEM protein (His tag)

Catalog Number	547084
Synonyms	GTP-binding mitogen-induced T-cell protein; RAS-like protein KIR
Species	Human
Expression System	E. coli
Accession	P55040
Molecular Weight	Predictes a molecular mass of 23.09 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	74-260
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 74-260 aa (P55040) 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 GTP-binding protein GEM (74-260) is a high-quality protein fragment designed for structural and biochemical research. This 187-amino acid fragment represents a stable, soluble region of GEM, maintaining key functional characteristics of this regulatory protein involved in cellular signaling pathways. GTP-binding protein GEM (RAS-like protein KIR) is a regulatory protein potentially involved in receptor-mediated signal transduction at the plasma membrane. The full-length protein exhibits guanine nucleotide-binding activity but lacks detectable intrinsic GTPase activity, suggesting it may function as a molecular switch in signaling cascades. GEM localizes to the cell membrane as a peripheral membrane protein on the cytoplasmic side, positioning it strategically for participation in plasma membrane-associated signaling events. This fragment was computationally selected to provide researchers with a stable, soluble protein unit suitable for detailed structural characterization and functional studies.