Recombinant RIT1 protein (His tag)

Catalog Number	540922
Synonyms	Ras-like protein expressed in many tissues; Ras-like without CAAX protein 1
Species	Human
Expression System	E. coli
Accession	Q92963
Molecular Weight	Predictes a molecular mass of 26.80 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	1-219
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-219 aa (Q92963) 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 Rit1 (EC 3.6.5.2) Fragment (1-219) is a high-purity, stable protein fragment ideal for investigating Ras-MAPK signaling, neuronal differentiation, and cellular proliferation pathways. This soluble fragment retains key functional regions, making it suitable for structural studies, biochemical assays, and functional analyses in life science research. GTP-binding protein Rit1, encoded by the RIT1 gene in Homo sapiens, is a Ras-like protein that plays a critical role in neuronal differentiation by coupling NGF stimulation to the activation of EPHB2 and MAPK14 signaling pathways. It is also involved in transactivating ELK1 through the Ras-MAPK cascade, which regulates diverse cellular processes including proliferation, survival, and differentiation. The protein is localized to the cell membrane, where it mediates signal transduction essential for cellular function. The provided fragment (residues 1-219) encompasses the core functional domain, enabling focused studies on Rit1's mechanistic roles without the full-length complexity.