Recombinant RBP1 protein (His tag)

Catalog Number	540335
Synonyms	RalBP1; 76 kDa Ral-interacting protein; Dinitrophenyl S-glutathione ATPase; DNP-SG ATPase; Ral-interacting protein 1
Species	Human
Expression System	E. coli
Accession	Q15311
Molecular Weight	Predictes a molecular mass of 53.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 63 kDa band.

Product Information

Sequence Region	160-603
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 160-603 aa (Q15311) 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 RalA-binding protein 1 (RalBP1) Fragment (160-603) is a high-purity protein encompassing the Rho-GAP domain (residues 192-380). This fragment serves as an essential tool for investigating the GTPase-activating functions of RalBP1, enabling targeted studies on CDC42 and RAC1 regulation, Ral signaling pathways, and cellular transport mechanisms. RalBP1 is a multifunctional human protein acting as a downstream effector of RALA and RALB GTPases. It functions as a GTPase-activating protein (GAP) that inactivates CDC42 and RAC1 by stimulating their GTPase activity, playing a key role in Ral signaling pathways. Additionally, RalBP1 regulates ligand-dependent endocytosis of EGF and insulin receptors, serves as a scaffold protein during mitosis for cyclin B-CDK1-mediated phosphorylation events, and controls mitochondrial fission through RALA recruitment. It also exhibits ATP-dependent transporter activity for glutathione conjugates and xenobiotics, contributing to multidrug resistance. The protein localizes to multiple cellular compartments including the cell membrane, cytoplasm, nucleus, and mitochondria, with dynamic localization patterns during cell cycle progression and in response to signaling cues.