Recombinant RFIP2 protein (His tag)

Catalog Number	542990
Synonyms	Rab11-FIP2; NRip11
Species	Human
Expression System	E. coli
Accession	Q7L804
Molecular Weight	Predictes a molecular mass of 18.61 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	1-146
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 1-146 aa (Q7L804) 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	Introducing the recombinant human Rab11 family-interacting protein 2 (Rab11-FIP2) fragment (amino acids 1-146), a high-purity tool designed to study the C2 domain's role in vesicle transport, endosomal recycling, and membrane trafficking. This fragment is ideal for investigating Rab11 effector functions in cellular processes such as insulin granule exocytosis and phagocytosis. Rab11-FIP2 (also known as NRip11) is a Rab11 effector protein in Homo sapiens that preferentially binds phosphatidylinositol 3,4,5-trisphosphate (PtdInsP3) and phosphatidic acid (PA). It plays a critical role in regulating vesicle transport from the endosomal recycling compartment (ERC) to the plasma membrane, including functions in insulin granule exocytosis, receptor-mediated endocytosis, and membrane trafficking of recycling endosomes. The protein is essential for transporting NPC1L1 to the plasma membrane in a complex with MYO5B and RAB11 and acts as a regulator of cell polarity. Additionally, it supports phagocytosis by coordinating actin dynamics through interactions with TICAM2, RAC1, and CDC42 Rho GTPases. Subcellularly, Rab11-FIP2 localizes to the phagocytic cup, cell membrane (as a peripheral membrane protein), and recycling endosome membrane, translocating with RAB11A from ERC vesicles to the plasma membrane. The provided fragment (1-146) encompasses the C2 domain, enabling focused research on domain-specific mechanisms in these pathways.