Recombinant DEN2A protein (His tag)

Catalog Number	549406
Species	Human
Expression System	E. coli
Accession	Q9ULE3
Molecular Weight	Predictes a molecular mass of 52.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 54 kDa band.

Product Information

Sequence Region	563-1009
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 563-1009 aa (Q9ULE3) 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 DENN domain-containing protein 2A fragment (amino acids 563-1009) from Homo sapiens, encompassing the critical uDENN, cDENN, and dDENN domains. This high-purity protein is an essential tool for investigating the guanine nucleotide exchange factor (GEF) activity and Rab protein regulation mechanisms in cellular transport processes. The full-length DENN domain-containing protein 2A, encoded by the DENND2A gene, functions as a guanine nucleotide exchange factor (GEF) that activates RAB9A and RAB9B by promoting GDP to GTP exchange, thereby converting inactive GDP-bound Rab proteins into their active GTP-bound forms. It plays a significant role in intracellular transport, particularly in late endosome to trans-Golgi network (TGN) trafficking. The protein is localized in the cytoplasm and associates with the cytoskeleton, specifically actin filaments, highlighting its involvement in cytoskeletal interactions and membrane trafficking pathways. This recombinant fragment retains key functional domains, enabling focused studies on domain-specific contributions to Rab protein activation and cellular transport mechanisms.