Recombinant DEN1B protein (His tag)

Catalog Number	545209
Synonyms	Connecdenn 2; Protein FAM31B
Species	Human
Expression System	E. coli
Accession	Q6P3S1
Molecular Weight	Predictes a molecular mass of 52.46 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	1-450
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 1-450 aa (Q6P3S1) 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 DENN domain-containing protein 1B (Connecdenn 2) fragment (amino acids 1-450) is a high-purity protein designed for studying the guanine nucleotide exchange factor (GEF) activity for RAB35 and its role in clathrin-mediated endocytosis. This fragment fully encompasses the critical uDENN, cDENN, and dDENN domains, making it an ideal tool for investigating T-cell receptor internalization and cytokine regulation mechanisms. DENN domain-containing protein 1B (DENND1B), also known as Connecdenn 2 or FAM31B, functions as a guanine nucleotide exchange factor (GEF) that activates RAB35 by promoting GDP to GTP exchange. It plays a pivotal role in clathrin-mediated endocytosis, particularly in regulating T-cell receptor (TCR) internalization and routing in TH2 lymphocytes. Through interaction with the adapter protein complex 2 (AP-2) and its GEF activity, DENND1B controls TCR down-modulation and recycling, directly influencing cytokine production. Dysregulation of this protein impairs TCR internalization, highlighting its significance in immune response mechanisms. The protein is localized in the cytoplasm, cytosol, and clathrin-coated vesicles, underscoring its involvement in vesicular trafficking processes.