Recombinant GIMA5 protein (His tag)

Catalog Number	540983
Synonyms	Immune-associated nucleotide-binding protein 5; Immunity-associated nucleotide 4-like 1 protein; Immunity-associated nucleotide 5 protein; IAN-5; hIAN5; Immunity-associated protein 3
Species	Human
Expression System	E. coli
Accession	Q96F15
Molecular Weight	Predictes a molecular mass of 33.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	1-284
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-284 aa (Q96F15) 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 GIMAP5 (1-284) is a high-purity protein fragment encompassing the complete AIG1-type G domain of GTPase IMAP family member 5. This product provides researchers with a specialized tool to investigate the critical roles of GIMAP5 in T lymphocyte development, survival, and cellular signaling pathways. GIMAP5 (GTPase IMAP family member 5) is a key regulator in immune cell biology, playing essential roles in T lymphocyte development and the optimal generation of CD4/CD8 double-positive thymocytes. The protein functions as an inhibitor of GSK3A, sequestering it in cytoplasmic vesicles and impairing its nuclear translocation, thereby modulating GSK3A-dependent transcriptional programs and DNA damage response during T cell proliferation. GIMAP5 is also required for the survival of peripheral T cells, natural killer (NK) and NK T-cell development, and maintenance of normal liver function. The protein localizes primarily to lysosome and endosome membranes as a single-pass type IV membrane protein, where it may regulate Ca^{2+} homeostasis by modulating lysosomal Ca^{2+} stores and preventing accumulation in the absence of T cell activation. Additionally, GIMAP5 may play roles in mitochondrial DNA segregation in hematopoietic tissues and liver endothelial cell homeostasis.