Recombinant GPS2 protein (His tag)

Catalog Number	544906
Synonyms	GPS-2
Species	Human
Expression System	E. coli
Accession	Q13227
Molecular Weight	Predictes a molecular mass of 15.75 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	1-115
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-115 aa (Q13227) 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 G protein pathway suppressor 2 (GPS-2) fragment (amino acids 1-115) is a highly stable and soluble protein unit designed for structural and biochemical studies. This fragment enables researchers to investigate the fundamental mechanisms of GPS-2, a key regulator of inflammation, lipid metabolism, and mitochondrial homeostasis, in a manageable and experimentally accessible format. G protein pathway suppressor 2 (GPS-2) is a multifunctional protein that plays critical roles in transcriptional regulation, inflammation control, lipid metabolism, and mitochondrial stress response. It functions by inhibiting the ubiquitin-conjugating enzyme UBE2N/Ubc13, thereby suppressing 'Lys-63'-linked ubiquitination. GPS-2 exhibits dual functionality in transcriptional regulation, acting as both a corepressor and coactivator depending on cellular context. It promotes cholesterol efflux, regulates B-cell development by restricting Toll-like receptor and B-cell antigen receptor signaling, and mediates mitochondrial stress response by translocating from mitochondria to nucleus upon depolarization. The protein localizes to multiple cellular compartments including nucleus, mitochondria, and cytoplasm, with its subcellular distribution regulated by sumoylation. GPS-2 also functions as a tumor suppressor in liposarcoma and plays a role in hepatitis C virus replication by facilitating viral protein interactions.