Recombinant NIPS2 protein (His tag)

Catalog Number	546534
Synonyms	NipSnap2; Glioblastoma-amplified sequence
Species	Human
Expression System	E. coli
Accession	O75323
Molecular Weight	Predictes a molecular mass of 28.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	63-286
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 63-286 aa (O75323) 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 NipSnap2 (63-286) is a high-quality protein fragment derived from Homo sapiens Protein NipSnap homolog 2. This fragment, encompassing residues 63-286, is engineered for stability and solubility, making it ideal for structural studies, biochemical assays, and research on mitochondrial quality control and mitophagy mechanisms. Protein NipSnap homolog 2 (NipSnap2), encoded by the NIPSNAP2 gene, plays a critical role in mitophagy by facilitating the clearance of damaged mitochondria. Upon mitochondrial depolarization, NipSnap2 accumulates on the mitochondrial surface, acting as an 'eat me' signal that recruits key autophagy machinery, including autophagy receptors (such as CALCOCO2/NDP52, NBR1, SQSTM1/p62, TAX1BP1, and WDFY3/ALFY) and ATG8 family proteins (MAP1LC3A, MAP1LC3B, MAP1LC3C, GABARAP, GABARAPL1, and GABARAPL2). This process is essential for maintaining mitochondrial health and cellular homeostasis. The full-length protein is localized to the mitochondrial matrix, as supported by experimental evidence. The recombinant fragment (63-286) was selected computationally to represent a stable, soluble unit for research applications, enabling detailed investigation of NipSnap2's functional domains without the full-length protein's complexity.