Recombinant NIPS1 protein (His tag)

Catalog Number	541121
Synonyms	NipSnap1
Species	Human
Expression System	E. coli
Accession	Q9BPW8
Molecular Weight	Predictes a molecular mass of 28.40 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	62-284
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 62-284 aa (Q9BPW8) 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 NipSnap1 Fragment (62-284) - A high-quality recombinant protein fragment of Protein NipSnap homolog 1, specifically engineered for structural and biochemical studies. This soluble fragment represents a stable domain of NipSnap1, a key regulator of mitophagy that functions as a critical 'eat me' signal for damaged mitochondria clearance. Protein NipSnap homolog 1 (NipSnap1) is a human mitochondrial matrix protein that plays a crucial role in mitophagy, the selective autophagy of damaged mitochondria. NipSnap1 accumulates on the mitochondrial surface following depolarization and serves as a recruitment signal for the autophagy machinery. It specifically interacts with multiple autophagy receptors including CALCOCO2/NDP52, NBR1, SQSTM1/p62, TAX1BP1 and WDFY3/ALFY, as well as ATG8 family proteins such as MAP1LC3A, MAP1LC3B, MAP1LC3C, GABARAP, GABARAPL1 and GABARAPL2. This makes NipSnap1 an essential mediator in the cellular quality control mechanism that eliminates dysfunctional mitochondria, with implications for understanding mitochondrial homeostasis and related diseases.