Recombinant SIDT2 protein (His tag)

Catalog Number	543160
Species	Human
Expression System	E. coli
Accession	Q8NBJ9
Molecular Weight	Predictes a molecular mass of 33.11 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	19-296
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 19-296 aa (Q8NBJ9) 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 SIDT2 (SID1 transmembrane family member 2) fragment (aa 19-296) is a stable, soluble protein designed for structural and biochemical studies. This fragment facilitates research into SIDT2's role in RNA and DNA translocation across lysosomal membranes, offering a reliable tool for investigating autophagy and nucleic acid uptake mechanisms. SIDT2 is a multi-pass membrane protein primarily located in the lysosomal membrane, with partial presence at the plasma membrane. It mediates the ATP-dependent translocation of RNA and DNA across lysosomal membranes during RNA and DNA autophagy (RDA), a process where nucleic acids are directly imported into lysosomes for degradation. SIDT2 is also involved in gymnosis, the uptake of single-stranded oligonucleotides by living cells. It binds long double-stranded RNA (500–700 base pairs) and exhibits higher efficiency in linear DNA uptake compared to circular DNA, playing a critical role in intracellular nucleic acid degradation and homeostasis.