Recombinant BECN1 protein (His tag)

Catalog Number	544978
Synonyms	Coiled-coil myosin-like BCL2-interacting protein; Protein GT197
Species	Human
Expression System	E. coli
Accession	Q14457
Molecular Weight	Predictes a molecular mass of 40.66 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	118-450
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 118-450 aa (Q14457) 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 Beclin-1 Fragment (118-450) is a high-quality, stable protein product derived from the autophagy-regulating protein Beclin-1. This specific fragment, spanning residues 118 to 450, is designed for structural and biochemical studies, offering researchers a soluble and functional unit ideal for investigating mechanisms of autophagy, vesicle trafficking, and cellular homeostasis. Beclin-1, encoded by the BECN1 gene in Homo sapiens, is a central regulator of autophagy, functioning as a core subunit of the PI3K complex that mediates formation of phosphatidylinositol 3-phosphate. It plays critical roles in multiple membrane trafficking pathways, including initiation and maturation of autophagosomes, endocytosis, and degradative endocytic trafficking. Additionally, Beclin-1 is involved in cytokinesis abscission and may contribute to antiviral host defense. The full-length protein localizes to various cellular compartments, such as the cytoplasm, Golgi apparatus, endosomes, endoplasmic reticulum, mitochondria, and autophagosomes, with specific cleaved forms like the 35 kDa fragment promoting apoptosis via mitochondrial pathways. The provided fragment (118-450) encompasses key functional domains, supporting its utility in exploring Beclin-1's multifaceted biological roles without compromising stability or solubility.