Recombinant PHAF1 protein (His tag)

Catalog Number	548112
Species	Human
Expression System	E. coli
Accession	Q9BSU1
Molecular Weight	Predictes a molecular mass of 49.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	1-422
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 1-422 aa (Q9BSU1) 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 Phagosome Assembly Factor 1 (PHAF1) Fragment (1-422) is a high-quality protein product designed for advanced research in autophagy and cellular degradation pathways. This 422-amino acid fragment represents a stable, soluble unit of PHAF1, optimized for structural studies, biochemical assays, and functional investigations into autophagosome formation. Phagosome Assembly Factor 1 (PHAF1), encoded by the PHAF1 gene in humans, plays a crucial regulatory role in autophagic activity. It functions in complex with BCAS3, associating with autophagosome formation sites during both non-selective and selective autophagy processes. The protein localizes to the cytoplasm and preautophagosomal structures, with the BCAS3:PHAF1 complex being specifically recruited to preautophagosomal structures adjacent to damaged mitochondria during mitophagy in a PRKN-PINK1 dependent manner. This strategic localization underscores its importance in cellular quality control mechanisms and degradation pathways.