Recombinant PEX6 protein (His tag)

Catalog Number	542642
Synonyms	Peroxin-6; Peroxisomal biogenesis factor 6; Peroxisomal-type ATPase 1; Peroxisome assembly factor 2; PAF-2
Species	Human
Expression System	E. coli
Accession	Q13608
Molecular Weight	Predictes a molecular mass of 10.15 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 10 kDa band.

Product Information

Sequence Region	203-282
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 203-282 aa (Q13608) 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 PEX6 (Peroxisomal ATPase) Fragment (aa 203-282) is a high-quality, stable protein fragment derived from the peroxisomal biogenesis factor PEX6. This 80-amino acid fragment is designed for structural and biochemical studies, offering researchers a soluble and well-characterized unit to investigate the molecular mechanisms of peroxisomal protein recycling and ATPase activity. Peroxisomal ATPase PEX6 is a critical component of the PEX1-PEX6 AAA ATPase complex, which functions as a protein dislocase in peroxisomal membrane dynamics. The complex mediates ATP-dependent extraction of the PEX5 receptor from peroxisomal membranes—an essential step for PEX5 recycling and peroxisomal matrix protein import. PEX6 specifically recognizes monoubiquitinated PEX5 and facilitates its unfolding and release from the peroxisome lumen through the retrotranslocation channel. Subcellularly, PEX6 localizes to the cytoplasm, cytosol, and peroxisome membranes, where it is anchored by PEX26, and is also found in specialized structures such as photoreceptor outer segments. Dysfunction in PEX6 is linked to peroxisome biogenesis disorders, underscoring its importance in cellular organelle homeostasis.