Recombinant PEX12 protein (His tag)

Catalog Number	541708
Synonyms	Peroxin-12; Peroxisome assembly factor 3; PAF-3
Species	Human
Expression System	E. coli
Accession	O00623
Molecular Weight	Predictes a molecular mass of 10.94 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	278-359
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 278-359 aa (O00623) 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 Peroxisome assembly protein 12 (PEX12) Fragment (aa 278-359) - A high-quality recombinant protein fragment designed for structural and biochemical studies of peroxisome assembly mechanisms. This 82-amino acid fragment represents a stable, soluble unit of the critical peroxisomal membrane protein, ideal for investigating PEX5 receptor recycling and peroxisome organization pathways. Peroxisome assembly protein 12 (PEX12) is an essential component of the peroxisomal retrotranslocation channel in human cells, working in conjunction with PEX2 and PEX10 to mediate the export of the PEX5 receptor from peroxisomes to the cytosol, thereby facilitating PEX5 recycling. Located in the peroxisome membrane as a multi-pass membrane protein, PEX12 plays a dual role in peroxisome organization by both forming the retrotranslocation channel and regulating PEX10's E3 ubiquitin-protein ligase activity. When PEX5 recycling is compromised, PEX12 stimulates PEX10-mediated polyubiquitination of PEX5, targeting it for degradation. This protein is crucial for maintaining proper peroxisome function and cellular organization.