Recombinant PEX10 protein (His tag)

Catalog Number	541825
Synonyms	Peroxin-10; Peroxisomal biogenesis factor 10; Peroxisome assembly protein 10; RING finger protein 69
Species	Human
Expression System	E. coli
Accession	O60683
Molecular Weight	Predictes a molecular mass of 12.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	237-326
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 237-326 aa (O60683) 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	This recombinant protein represents a stable, soluble fragment (residues 237-326) of human Peroxisome biogenesis factor 10 (PEX10), an essential E3 ubiquitin-protein ligase involved in peroxisome organization and PEX5 receptor recycling. This carefully selected 90-amino acid fragment provides an ideal tool for structural studies and biochemical characterization of PEX10 function. Peroxisome biogenesis factor 10 (PEX10) is a critical multi-pass membrane protein located in the peroxisome membrane, functioning as an E3 ubiquitin-protein ligase component of the retrotranslocation channel. This channel, composed of PEX2, PEX10, and PEX12, mediates the export of the PEX5 receptor from peroxisomes to the cytosol, thereby promoting PEX5 recycling and maintaining peroxisome organization. When PEX5 recycling is compromised, PEX10 catalyzes polyubiquitination of PEX5 during its passage through the retrotranslocation channel, targeting it for degradation. This regulatory mechanism ensures proper peroxisomal function and highlights PEX10's central role in cellular organelle maintenance.