Recombinant PEX2 protein (His tag)

Catalog Number	546888
Synonyms	35 kDa peroxisomal membrane protein; Peroxin-2; Peroxisomal membrane protein 3; Peroxisome assembly factor 1; PAF-1; RING finger protein 72
Species	Human
Expression System	E. coli
Accession	P28328
Molecular Weight	Predictes a molecular mass of 11.93 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	212-305
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 212-305 aa (P28328) 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 Peroxisome biogenesis factor 2 (PEX2) fragment (residues 212-305) from Homo sapiens, a stable and soluble unit ideal for investigating peroxisome organization, PEX5 receptor recycling, and ubiquitin-protein ligase mechanisms in structural and biochemical studies. Peroxisome biogenesis factor 2 (PEX2) is a multi-pass membrane protein localized to the peroxisome membrane and functions as an E3 ubiquitin-protein ligase critical for peroxisome organization. It forms part of a retrotranslocation channel with PEX10 and PEX12, facilitating the export of the PEX5 receptor from peroxisomes to the cytosol to enable PEX5 recycling. PEX2 catalyzes monoubiquitination of PEX5 at 'Cys-11', signaling its extraction, and also regulates pexophagy by ubiquitinating peroxisomal proteins like PEX5 and ABCD3/PMP70 during starvation. Additionally, it responds to reactive oxygen species by mediating 'Lys-48'-linked polyubiquitination and degradation of PNPLA2/ATGL, thereby modulating lipolysis. This fragment represents a computationally selected stable region for experimental applications.