

For Research Use Only

Recombinant Human PDI protein (rFc Tag)



Catalog Number: Eg3053

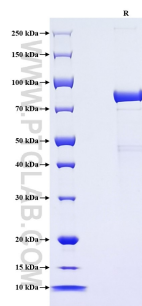
Basic Information	Species: Human	Purity: >90 %, SDS-PAGE	Tag: rFc Tag
Technical Specifications	Purity: >90 %, SDS-PAGE Endotoxin Level: <0.1 EU/μg protein, LAL method Source: HEK293-derived Human PDI protein Asp18-Leu508 (Accession# P07237) with a rabbit IgG Fc tag at the C-terminus. GeneID: 5034 Accession: P07237 Predicted Molecular Mass: 81.3 kDa SDS-PAGE: 80-90 kDa, reducing (R) conditions Formulation: Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.		
Biological Activity	Not tested		
Storage and Shipping	Storage: It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. • Until expiry date, -20°C to -80°C as lyophilized proteins. • 3 months, -20°C to -80°C under sterile conditions after reconstitution. Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.		
Reconstitution	Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.		
Background	P4HB (Prolyl 4-hydroxylase subunit beta) belongs to the disulfide bond isomerase family and is a highly abundant multifunctional enzyme responsible for hydroxylating prolyl residues in procollagen. It can catalyze the formation, breakage and rearrangement of disulfide bonds through two thioredoxin structural domains, which are important for maintaining the oxidative environment in the endoplasmic reticulum. P4HB dysregulation has been reported in neoplasms, diabetes mellitus, neurodegenerative diseases and cardiovascular disorders and its up-regulation in most of the tumors correlates with a poor prognosis, thus P4HB may serve as a potent target for a variety of cancers. (PMID: 38029391) P4HB serves as a novel target for UFMylation, and its UFMylation deficiency promotes P4HB protein degradation via the ubiquitin-proteasome pathway, which leads to impairment of mitochondrial function and exacerbates oxidative stress and ERS; Therefore, P4HB UFMylation may be a therapeutic target for liver mitochondrial function-related diseases. (PMID: 35753586)		
References	1. Feng D, et al. Aging Dis. 2023;15(6):2369-2380. 2. Gao X, et al. J Extracell Vesicles. 2021;10(5):e12060. 3. Zhu J, et al. Free Radic Biol Med. 2022;188:277-286. 4. Wu Y, et al. Oncol Lett. 2021;21(2):95.		
Synonyms	P4HB, PDI, Cellular thyroid hormone-binding protein, CLCRP1, DSI		

For technical support and original validation data for this product please contact

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA) E: proteintech@ptglab.com W: ptglab.com

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Selected Validation Data



Purity of Recombinant Human PDI was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.