

PDIA2

Recombinant Human Protein Disulfide Isomerase

Catalog No.	CSI12664 CSI12665 CSI12666	Quantity:	100 µg 500 µg 1.0 mg
Alternate Names:	PDI, DSI, P4H-beta, PDIA1, PHDB, PO4DB, PROHB, GIT, ERBA2L		
Gene ID:	64714		
Description:	Protein disulfide isomerases (PDIs) constitute a family of structurally related enzymes which catalyze disulfide bonds formation, reduction, or isomerization of newly synthesized proteins in the lumen of the endoplasmic reticulum (ER). They act also as chaperones, and are, therefore, part of a quality-control system for the correct folding of the proteins in the same sub-cellular compartment.		
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.		
Source:	<i>E. coli</i>		
Molecular Weight:	Approximately 56.6 kDa, a single non-glycosylated polypeptide chain containing 502 amino acids. (MRGSGSHHHHH-PDI).		
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.0.		
Purity:	>95% by SDS-PAGE and HPLC analyses.		
Endotoxin Level:	Less than 1EU/µg of rHuPDI as determined by LAL method.		
Biological Activity:	Thiol Protein Reductase Activity is $1.0 \times 10^{-3} \Delta 650 \text{ nm/min}^{-2}$, determined by measuring the turbidity increase at 650 nm due to insulin reduction. The activity is expressed as the ratio of the slope of a linear part of the turbidity curve to the lag time. Isomerase Activity is $0.5 \mu\text{mol active RNase A min}^{-1} \mu\text{mol PDI}^{-1}$, according to the reactivation of reduced and denatured RNase.		
Amino Acid Sequence:	MRGSGSHHHH HHAPEEEDHV LVLKRSNFAE ALAAHKYLLV EFYAPWCGHC KALAPEYAKA AGKKAEGSE IRLAKVDATE ESDLAQQYGV RGYPTIKFFR NGDTASPKEY TAGREADDIV NWLKKRTGPA ATTLPDGAAA ESLVESSEVA VIGFFKDVES DSAKQFLQAA EAIDDIPFGI TSNSDVFSKY QLDKDGVVLV KKFDEGRNNF EGEVTKENLL DFIKHNQLPL VIEFTEQTAP KIFGGEIKTH ILLFLPKSVS DYDGKLSNFK TAAESFKGKI LFIFIDSDHT DNQRILEFFG LKKEECPAVR LITLEEEMTK YKPESEELTA ERITEFCHRF LEGKIKPHLM SQELPEDWDK QPVKVLVGKN FEDVAFDEKK NVFVEFYAPW CGHCKQLAPI WDKLGETYKD HENIVIAKMD STANEVEAVK VHSFPTLKFF PASADRTVID YNGERTLDGF KKFLESGGQD GAGDDDDLED LEEAEEPME EDDQKAVKD EL		
Reconstitution:	Centrifuge vial prior to opening. Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/mL. Further dilutions should be made in appropriate buffered solutions.		
Storage & Stability:	This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2-4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. Avoid repeated freeze/thaw cycles.		

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