Technical Data Sheet

Recombinant Human Protein Disulfide Isomerase (rHu PDI)

Human Protein Disulfide Isomerase

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 subcellular compartment.

Catalog Number:	RC512-13
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 62.4 kDa, a single non-glycosylated polypeptide chain containing 503 amino acids. (MRGSGSHHHHHH-PDI).
Quantity:	100µg/500µg/1mg
Purity:	>95% by SDS-PAGE and HPLC analyses.
Thiol protein reductase activity:	1.0×10^{-3} Δ650nm/ min^{-2}. By measuring the turbidity increase at 650 nm due to insulin reduction (Holmgren, A. (1979) J. Biol. Chem. 254, 9627–9632). The activity is expressed as the ratio of the slope of a linear part of the turbidity curve to the lag time (Martý´nez-Galisteo, E., Padilla, C. A., Garcia-Alfonso, C., Lo´pez-Barea, J., and Barcena, J. A. (1993) Biochimie (Paris) 75, 803–809).
Isomerase activity:	0.5 µmol active RNase A min^{-1} µmol PDI^{-1}. According to the re-activation of reduced and denatured RNase A (Lyles, M. M. and Gilbert, H. F. (1991) Biochemistry 30, 613-619).
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.0.
Endotoxin:	Less than 1EU/µg of rHuPDI as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. **Avoid repeated freeze/thaw cycles**.
Usage:	This material is offered by Bio Basic Inc. for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.

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