Protein Disulfide Isomerase

Expressed in *E. coli*
Cat. No. CRP0856
Lot. No. (See product label)

PRODUCT INFORMATION

Description: Protein disulfide isomerase facilitates formation of the correct disulfide bonds by promoting rapid reshuffling of disulfide pairings. Protein disulfide Isomerase is expressed as soluble form in *E.coli*.

Background: Protein disulfide isomerases (EC 5.3.4.1), such as PDIP, are endoplasmic reticulum (ER) resident proteins that catalyze protein folding and thiol-disulfide interchange .

M. W. : 57,119 Da

Recombinant: Expressed in *E. coli*

Purity: >95% as determined by HPLC.

Unit definition: One unit causes a change in A650 of 0.01 per min of a 1.0 mg/ml solution of insulin the presence of dithiothreitol at pH 7.5 at 25 ^{o}C.

Storage buffer: Liquid. In PBS Buffer.

FOR RESEARCH USE ONLY

GENE INFORMATION

Gene Name: PDIA2

Synonyms: LA16c-314G4.2; PDA2; PDI; PDIP; PDIR; EC 5.3.4.1; PDIp; Protein disulfide-isomerase A2 precursor; Rho GDP dissociation inhibitor gamma; pancreatic protein disulfide isomerase; protein disulfide isomerase family A, member 2; protein disulfide isomerase, pancreatic; protein disulfide isomerase-associated 2

mRNA Refseq: NM_006849.2

Protein Refseq: NP_006840.2

MIM: 608012

GeneID: 64714

Uniprot ID: Q13087

Chromosome Location: 16p13.3

Function: isomerase activity. protein binding. protein disulfide isomerase activity

Process: apoptotic program. cell redox homeostasis. protein folding. protein retention in ER lumen. response to hypoxia

REFERENCES

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2. Lundström J, Holmgren A. Protein disulfide-isomerase is a substrate for thioredoxin reductase and has thioredoxin - like activity. *J. Biol. Chem*. 1990; 265 (16): 9114–9120.

3. Lyles MM, Gilbert HF. Catalysis of the oxidative folding of ribonuclease A by protein disulfide isomerase: dependence of the rate on the composition of the redox buffer. *Biochemistry.* 1991; 30 (3): 613–619.

4. Raturi A, Mutus B. Characterization of redox state and reductase activity of protein disulfide isomerase under different redox environments using a sensitive fluorescent assay. *Free Radic. Biol. Med*. 2007; 43 (1): 62–70.

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