

## Recombinant Human Protein Disulfide Isomerase Family A, Member 2

**Cat. No.** PDIA2-1660H    **Lot. No.** (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Product Overview</b>    | Recombinant Human PDIA2 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 508 amino acids and having a molecular mass of 57.1 kDa.                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>         | PDIA2 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. Human Protein Disulfide Isomerase is involved in disulphide-bond formation and isomerization, as well as the reduction of disulphide bonds in proteins. PDIA2 has been found to have moderate effects (25-fold) on the rate of oxidative folding of proteins in vitro. |
| <b>Biological Activity</b> | Recombinant PDIA2 is biological active. Reductase activity is $1.0 \times 10^3 \Delta 650\text{nm}/\text{min}^{-2}$ , 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 $0.5 \mu\text{mol active RNase A min}^{-1} \mu\text{mol PDIA2}$ , according to the re-activation of reduced and denatured RNase A.             |
| <b>Molecular Weight</b>    | 57.1 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Form</b>                | Lyophilized powder.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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| <b>Endotoxin Level</b> | <0.1 ng/μg                                                                                                                                                                                                       |
| <b>Appearance</b>      | Lyophilized protein                                                                                                                                                                                              |
| <b>Purity</b>          | ≥95% by SDS-PAGE and ≥95% by HPLC                                                                                                                                                                                |
| <b>Storage</b>         | The lyophilized protein is best-stored desiccated below 0°C. Reconstituted PDI should be stored in working aliquots at -20°C. For long-term storage, it is recommended to add carrier protein (0.1% HAS or BSA). |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | PDIA2 protein disulfide isomerase family A, member 2 [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                |
| <b>Official Symbol</b> | PDIA2                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b>        | PDIA2; protein disulfide isomerase family A, member 2; PDI; PDA2; PDIP; PDIR; protein disulfide-isomerase A2; OTTHUMP00000067350; OTTHUMP00000197166; protein disulfide isomerase A2; Rho GDP dissociation inhibitor gamma; pancreatic protein disulfide isomerase; protein disulfide isomerase, pancreatic; protein disulfide isomerase-associated 2; pancreas-specific protein disulfide isomerase |
| <b>Gene ID</b>         | 64714                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>mRNA Refseq</b>     | NM_006849                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Protein Refseq</b>  | NP_006840                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>MIM</b>             | 608012                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>UniProt ID</b>      | Q13087                                                                                                                                                                                                                                                                                                                                                                                               |

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| <b>Chromosome Location</b> | 16p13.3                                                                                                                                                             |
| <b>Pathway</b>             | Statin Pathway                                                                                                                                                      |
| <b>Function</b>            | electron carrier activity; isomerase activity; isomerase activity; protein disulfide isomerase activity; protein disulfide oxidoreductase activity; steroid binding |

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