

Product information

PDIA3, 25-505 aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP3137

Full Name: Protein disulfide-isomerase A3

NCBI Accession No.: NP_005304

Synonyms: ER60, ERp57, ERp60, ERp61, GRP57, GRP58, HsT17083, P58, PI-PLC

Description: PDIA3, also known as protein disulfide-isomerase A3, is a protein of the endoplasmic reticulum that interacts with lectin chaperones calreticulin and calnexin to modulate folding of newly synthesized glycoproteins. This protein has protein disulfide isomerase activity. PDIA3 is also part of the major histocompatibility complex (MHC) class I peptide-loading complex (TAP1), which is essential for formation of the final antigen conformation and export from the endoplasmic reticulum to the cell surface. Recombinant human PDIA3 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

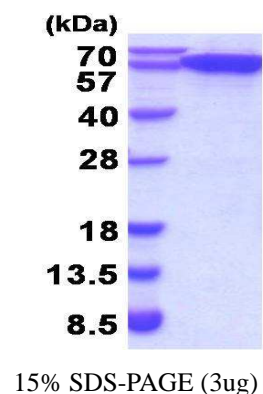
Form: Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 0.1 M NaCl, and 10% glycerol

Molecular Weight: 58.5 kDa (518aa), confirmed by MALDI-TOF

Purity: > 95% by SDS - PAGE

Concentration: 1 mg/ml (determined by Bradford assay)

Biological activity: Specific activity > 20 A₆₅₀/cm/min/mg. Enzymatic activity was confirmed by measuring the aggregation of insulin in the presence of DTT.



Sequences of amino acids:

MRGSHHHHHH GMASMTGGGQ MGRDLYDDDD KDRWGSMSDV LELTDDNFES RISDTGSAGL MLVEFFAPWC GHCKRLAPEY EAAATRLKGI
VPLAKVDCTA NTNTCNKYGV SGYPTLKI FR DGEEAGAYDG PRTADGIVSH LKKQAGPASV PLRTEEEFKK FISDKDASIV GFFDDSFSEA
HSEFLKAASN LRDNYRFAHT NVESLVNEYD DNGEGII LFR PSHLTNKFED KTVAYTEQKM TSGKIKKFIQ ENIFGICPHM TEDNKDLIQG
KDLLIAYYDV DYEKNAKGSN YWRNRVMMVA KKFLDAGHKL NFAVASRKTF SHELSDFGLE STAGEIPVVA IRTAKGEKVF MQEEFSRDGK
ALERFLQDYF DGNLKRYLKS EPI PESNDGP VKVVAENFD EIVNNENKDV LIEFYAPWCG HCKNLEPKYK ELGEKLSKDP NIVIAKMDAT
ANDVSPYEV RGFPTIYFSP ANKKLNPCKY EGGRELSDFI SYLQREATNP PVIQEEKPKK KKKAQEDL

Activity Assay

1. Prepare a 180ul assay buffer into a suitable container: The concentrations are 0.67mM DTT, insulin 5.3mg, 1.2mM EDTA

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:

Immuno-Biological Laboratories, Inc. (IBL-America)
8201 Central Ave. NE, Suite P, Minneapolis, Minnesota 55432, USA

Phone: (888) 523-1246 Fax.: (763) 780-2988

Email: info@ibl-america.com Web: www.ibl-america.com

Product information

2. Dilute insulin 8mg/ml in 3mM EDTA buffer (pH7.0) and incubate diluted insulin for 5minutes at 37C.
3. Dilute PDIA3 to 300ug/ml in 0.1%BSA.
4. Mix 40ul diluted PDIA3 and 10mM DTT 10ul.
5. Mix 50ul of 300ug/ml PDIA3 in 10mM DTT and 100ul of 8mg/ml insulin.
6. Incubate at 37C for 4minutes.
7. Read at 650nm in kinetic mode for 10minutes.

General references:

Vigneron N., *et al.* (2009) *Eur J Immunol.* 39(9):2371-6.

Forster ML., *et al.* (2009) *J Biol Chem.* 284(19):13045-56.

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C.

Avoid repeated freezing and thawing cycles.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:

Immuno-Biological Laboratories, Inc. (IBL-America)
8201 Central Ave. NE, Suite P, Minneapolis, Minnesota 55432, USA

Phone: (888) 523-1246

Fax.: (763) 780-2988

Email: info@ibl-america.com

Web: www.ibl-america.com