

32-6873: PDIA3 Human, Active

Application :	Functional Assay
Alternative Name :	ERp57, ERp60, ERp61, GRP57, GRP58, HsT17083, P58, PI-PLC, ER60, Protein disulfide-isomerase A3, Disulfide isomerase ER-60, Endoplasmic reticulum resident protein 60, ER protein 60, 58 kDa microsomal protein, Endoplasmic reticulum resident protein 57, ER protein 57, 58 kDa glucose-regulated protein, PDIA3.

Description

Source: Escherichia Coli.

Sterile filtered colorless solution.

PDIA3 is an enzyme that belongs to the endoplasmic reticulum and interacts with lectin chaperones calreticulin and calnexin to modulate folding of newly synthesized glycoproteins. PDIA3 has protein disulfide isomerase activity. Complexes of lectins and PDIA3 mediate protein folding by promoting formation of disulfide bonds in their glycoprotein substrates. PDIA3 is expressed in the lumbar spinal cord from rats submitted to peripheral lesion during neonatal period. PDIA3 interacts with thiazide-sensitive sodium-chloride cotransporter in the kidney and is induced by glucose deprivation. PDIA3 is part of the major histocompatibility complex (MHC) class I peptide-loading complex (TAP1), which is important for formation of the final antigen conformation and export from the endoplasmic reticulum to the cell surface.

PDIA3 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 518 amino acids (25-505 a.a.) and having a molecular weight of 58.5 kDa. The PDIA3 is fused to 37 a.a. His-Tag at N-terminus and purified by proprietary chromatographic techniques.

Product Info

Amount :	2 µg / 10 µg
Purification :	Greater than 95.0% as determined by SDS-PAGE.
Content :	The PDIA3 protein solution contains 20mM Tris-HCl, pH-8, 1mM DTT, 0.1M NaCl and 10% glycerol.
Storage condition :	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.
Amino Acid :	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMDSV LELTDDNFES RISDTGSAGL MLVEFFAPWC GHCKRLAPEY EAAATRLKGI VPLAKVDCTA NTNTCNKYGV SGYPTLKIFR DGEEAGAYDG PRTADGIVSH LKKQAGPASV PLRTEEEFKK FISDKASIV GFFDDFSSEA HSEFLKAASN LRDNYRFAHT NVESLVNEYD DNGEGILFR PSHLTNKFED KTVAYTEQKM TSGKIKKFIQ ENIFGICPHM TEDNKDLIQG KDLLIAYYDV DYEKNAKGSN YWRNRVMMVA KKFLDAGHKL NFAVASRKTFF SHELSDFGLE STAGEIPVVA IRTAKGEKFV MQEFSRDGK ALERFLQDYF DGNLKRYLKS EPIPESNDGP VKVVVAENFD EIVNNENKDV LIEFYAPWCG HCKNLEPKYK ELGEKLSKDP NIVIAKMDAT ANDVSPYEV RGFPTIYFSP ANKKLNPKKY EGGRELSDFI SYLQREATNP PVIQEEKPKK KKKAQEDL.

Application Note

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