PDI (human), (recombinant) (His-tag)

The mammalian protein disulfide-isomerase (PDI) family encompasses several highly divergent proteins involved in the processing and maturation of secretory proteins in the ER by catalyzing the rearrangement of disulfide bonds. PDI, an abundant protein of the ER (>400uM), contains a carboxy-terminal retention signal sequence, KDEL, similar to that of BiP and Grp94. The PDI proteins are characterized by the presence of one or more domains of ~95-110 amino acids related to the cytoplasmic protein thioredoxin. All but the PDI-D subfamily are composed entirely of repeats of such domains, with at least one domain containing – and one domain lacking – a redox-active Cys-X-X-Cys tetrapeptide. In addition to roles as redox catalysts and isomerases, PDI proteins perform such functions as peptide binding and cell adhesion, and may conduct chaperone activities1. Platelet surface thiols and disulfides play an important role in platelet responses. Catalytically active PDI resides on platelet surfaces where it mediates platelet aggregation and secretion by reducing disulfide bonds, thus exposing fibrinogen receptors in platelets.

Citations: 3 View Online »

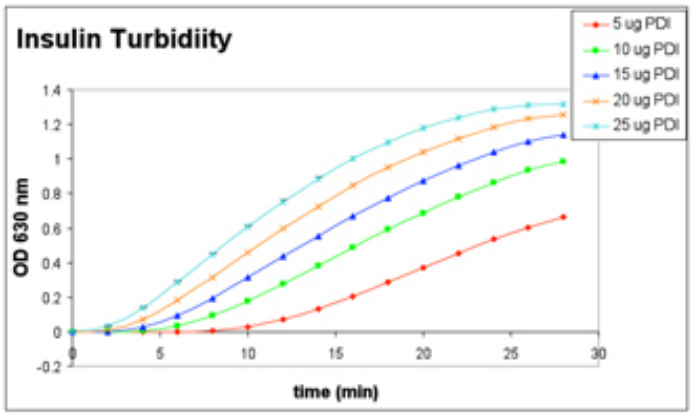
Ordering Information

Order Online »

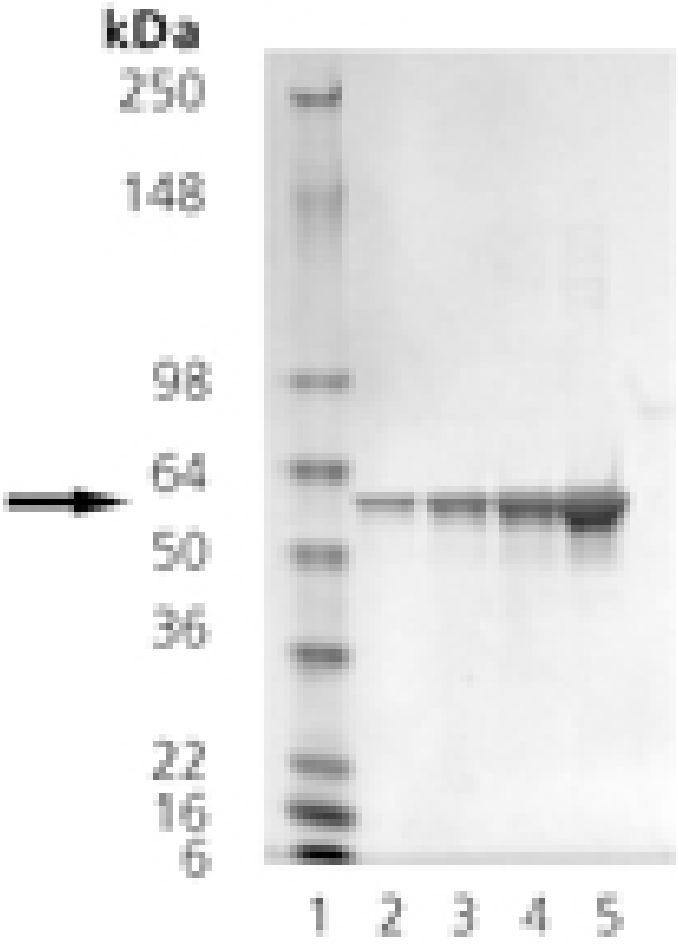
ADI-SPP-891-J	1mg
ADI-SPP-891-D	50µg
ADI-SPP-891-F	200µg

Manuals, SDS & CofA

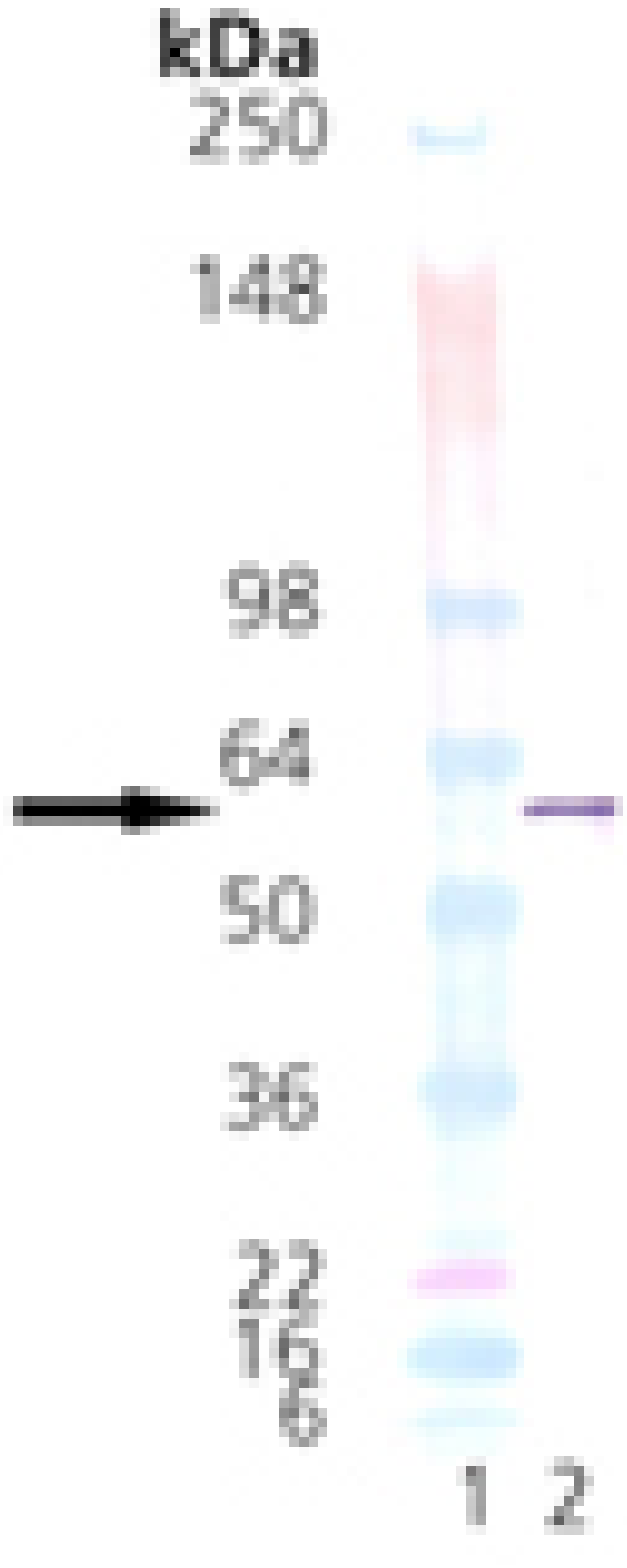
View Online »



Enzymatic Activity: 1mg/ml insulin incubated with PDI in the presence of DTT – turbidity measured in 96-well microplate reader at 2 min intervals.



SDS-PAGE analysis: Lane 1: MW marker, Lane 2: 0.5µg, Lane 3: 1µg, Lane 4: 2µg, Lane 5: 5µg PDI (human), (recombinant) (His-tag).



Western Blot analysis: Lane 1: MWM, Lane 2: 50 ng PDI (human), (recombinant) (His-tag), probed with Prod. No. ADI-SPA-891.

Handling & Storage

Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Activity	Positive for disulfide isomerase activity, measured by promotion of insulin aggregation in the presence of DTT.
Alternative Name	P4HB, protein disulfide isomerase
Application Notes	Western blot control.
Formulation	Liquid. In 50mM TRIS, pH 7.5, containing 150mM sodium chloride, 1mM DTT, 1mM EDTA, and 5% glycerol.
MW	~58kDa
Purity	≥95% (SDS-PAGE; Western blot)
Purity Detail	Purified by multi-step chromatography.
Source	Produced in *E. coli*. Human PDI is fused at the N-terminus to a His-tag.
Specific Activity	>200 U/mg. 1 U increases the A_{650} of a 1mg/ml insulin solution by .01 OD/min at 25°C in the presence of DTT.
UniProt ID	P07237

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