

Product Information



PDI Polyclonal Antibody

Item No. 13025

Contents:	This vial contains whole rabbit serum
Synonym:	Protein Disulphide Isomerase
Antigen:	Synthetic peptide from rat PDI conjugated to KLH
Host:	Rabbit
Cross Reactivity:	(+) Human, mouse, rat, canine, hamster, monkey, guinea pig, bovine, ovine, porcine, and <i>Xenopus</i> PDI
Stability:	≥1 year at -20°C
Applications:	Western blot (WB), immunoprecipitation, immunocytochemistry, and immunohistochemistry. The recommended starting dilution for WB is 1:4,000.

The three dimensional structure of many extracellular proteins is stabilized by the formation of disulphide bonds. Studies suggest that a microsomal enzyme known as protein disulphide isomerase (PDI) is involved in disulphide-bond formation *via* its oxidase activity and isomerization *via* its isomerase activity, as well as the reduction of disulphite bonds in proteins.¹ Studies suggest BiP and PDI work together sequentially to increase oxidation of these proteins.^{2,3} PDI has also been found to function as a chaperone to prevent the aggregation of unfolded substrates, and serves as a subunit of prolyl 4-hydroxylase and microsomal triglyceride transferase.^{4,5}

PDI is an abundant 55 kDa protein located primarily in the ER, however studies have also proved its presence in the cytosol.¹ PDI has the ability to reside in the ER permanently due to the highly conserved KDEL sequence at its carboxy-terminus.⁶ It uses carboxy-terminal KDEL as a retention signal, and this appears to be sufficient to reduce the secretion of proteins from the ER. This retention is reported to be mediated by a KDEL receptor.⁷

References

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5. Turano, C., Coppari, S., Altieri, F., *et al.* Proteins of the PDI family: Unpredicted non-ER locations and functions. *J. Cell Physiol.* **193**(2), 154-163 (2002).
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