Technical Data Sheet

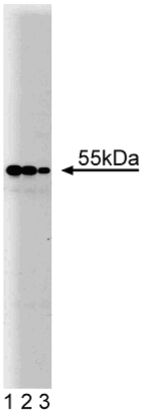
Purified Mouse Anti-PDI

Product Information

Material Number:	**610947**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	34/PDI
Immunogen:	Bovine PDI aa. 109-214
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Dog, Rat, Mouse,
Target MW:	55 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The ER is the site of translation of membrane and secretory proteins. Following synthesis, it shuttles these proteins through a contiguous membrane system to their appropriate destinations. **P**rotein **d**isulfide **i**somerase (PDI) is an abundant, multifunctional, eukaryotic protein. Although it exhibits ubiquitous expression, it is primarily located in the ER lumen. Here, it functions to catalyze the isomerization of intramolecular disulfide bridges, thereby allowing them to generate their most thermodynamically stable configurations. This role in rearrangement has lead to the classification of PDI as a chaperone. Although protein folding occurs in its absence, PDI may be essential for it to proceed at a physiological relevant rate. In addition, PDI is the β-subunit of prolyl 4- hydroxylase and is a component of the triglyceride transfer complex. PDI is retained in the ER lumen via its C-terminal -KDEL sequence. Via this sequence, it is continuously recycled back to the ER from other membranous compartments. Thus, PDI is a diverse protein whose primary function may be to correct disulfide bonding and, thus, ensure the most stable conformation of newly synthesized proteins.



Western blot analysis of PDI on HCT-8 cell lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-PDI.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611474	HCT-8 Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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Weissman JS, Kim PS. Efficient catalysis of disulphide bond rearrangements by protein disulphide isomerase. *Nature.* 1993; 365(6442):185-188.(Biology)

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