

Cyclophilin B (D1V5J) Rabbit mAb

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, W-S	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 20	Source/Isotype: Rabbit IgG	UniProt ID: #P23284	Entrez-Gene Id: 5479
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Product Usage Information**Application**

Western Blotting
Simple Western™

Dilution

1:1000
1:10 - 1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Cyclophilin B (D1V5J) Rabbit mAb recognizes endogenous levels of total cyclophilin B protein. This antibody does not cross-react with cyclophilin A protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human cyclophilin B protein.

Background

Cyclophilin B (CyPB) is an ER-localized chaperone protein belonging to the family of peptidyl-prolyl cis-trans isomerases (PPIases) (1,2). Research studies have demonstrated that CyPB associates with type I procollagen and is involved in its sorting and transport through the secretory compartment (3). Mutations in the gene encoding CyPB, *PPIB*, lead to aberrant biosynthesis of type I procollagen, which underlies the pathogenesis of osteogenesis imperfecta (OI), a disorder characterized by bone fragility (4-7). In addition to its role in OI, research studies demonstrate that CyPB overexpression supports the expression of multiple oncogenic drivers of glioblastoma multiforme (8).

Background References

- Price, E.R. et al. (1991) *Proc Natl Acad Sci U S A* 88, 1903-7.
- Hasel, K.W. et al. (1991) *Mol Cell Biol* 11, 3484-91.
- Smith, T. et al. (1995) *J Biol Chem* 270, 18323-8.
- Pyott, S.M. et al. (2011) *Hum Mol Genet* 20, 1595-609.
- van Dijk, F.S. et al. (2009) *Am J Hum Genet* 85, 521-7.
- Cabral, W.A. et al. (2014) *PLoS Genet* 10, e1004465.
- Choi, J.W. et al. (2009) *PLoS Genet* 5, e1000750.
- Choi, J.W. et al. (2014) *Cancer Res* 74, 484-96.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **W-S:** Simple Western™

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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