

## Product Information

### Monoclonal Anti-Cyclophilin B, clone CYPB-3

produced in mouse, purified immunoglobulin

Catalog Number **SAB4200360**

#### Product Description

Monoclonal Anti-Cyclophilin B (mouse IgG1 isotype) is derived from the hybridoma CYPB-3 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to the C-terminal region of human Cyclophilin B (GeneID: 5479), conjugated to KLH. The corresponding sequence is identical in mouse, monkey and canine and differs by one amino acid in rat Cyclophilin B. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-Cyclophilin B recognizes human, rat and mouse Cyclophilin B. The antibody may be used in various immunochemical techniques including immunoblotting (~20 kDa) and immunofluorescence. Detection of the Cyclophilin B band by immunoblotting is specifically inhibited by the immunizing peptide.

Cyclophilin B (CypB) is a 21 kDa protein encoded by the PPIB gene that belongs to the cyclophilin family, a highly conserved class of proteins originally identified as cellular binding proteins for the immunosuppressive drug cyclosporin A. Cyclophilins are peptidyl-propyl cis-trans isomerases (PPIases) that assist protein folding by catalyzing the isomerization of peptidyl-proline bonds. CypB is mainly located within the endoplasmic reticulum (ER) of all cell types. CypB is involved in inflammation, viral infection and cancer. It also plays an important role in protecting cells against ER stress via its PPIase activity. Mutations in the PPIB gene give rise to recessive forms of osteogenesis imperfecta and knockdown of this gene decreases cell growth, proliferation and migration.<sup>1-5</sup>

#### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze at -20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

Immunoblotting: a working antibody concentration of 2.5-5.0 µg/mL is recommended using whole cell extracts of human HepG2 or rat NRK cells.

**Note:** In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

#### References

1. van Dijk, F.S., et al., *Am. J. Hum. Genet.*, **85**, 521-527 (2009).
2. Kim, J., et al., *J. Cell Sci.*, **121**, 3636-3648 (2008).
3. Choi, J.W., et al., *PloS Genet.*, **5**, e1000750 (2009).
4. Heck, J.A., et al., *Biochem. Pharmacol.*, **77**, 1173-1180 (2009).
5. Zheng, F.F., et al., *J. Mol. Endocrinol.*, **44**, 319-329 (2010).

ST,KAA,PHC 11/11-1