

Cyclophilin B

Mouse Monoclonal IgG1

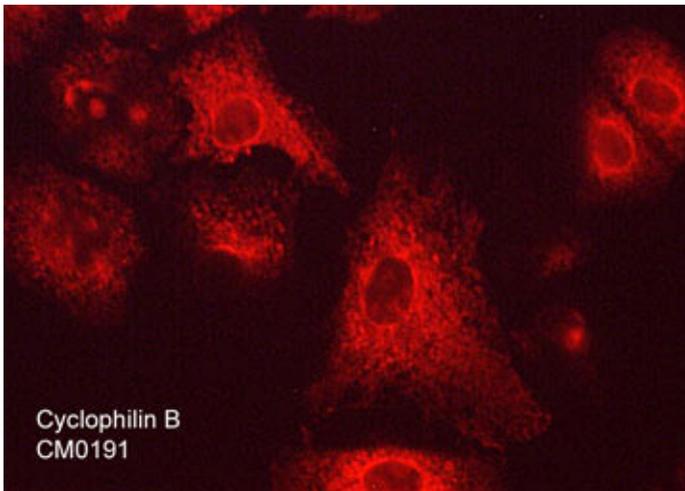
Cat. # CM0191
Size 100 µl

Background

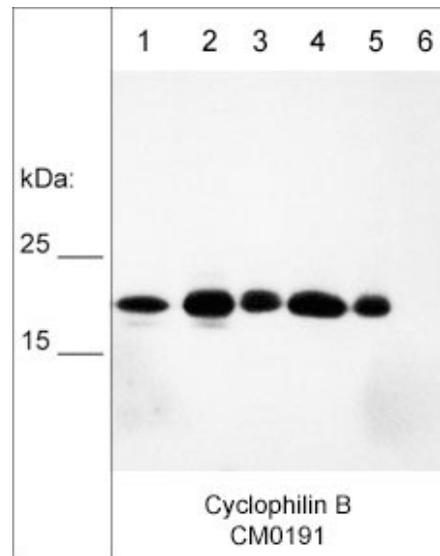
Cyclophilins are a highly conserved family of peptidylprolyl cis-trans-isomerases (PPI) that are targets of the immunosuppressant drug cyclosporin A. These isomerases have been proposed to aid in protein folding. Cyclophilin B (PPIB) is an ER-localized chaperone protein that associates with type I procollagen, and facilitates procollagen sorting and transport through the secretory compartment. Mutations in the cyclophilin B gene lead to aberrant biosynthesis of type I procollagen, and osteogenesis imperfecta, a disorder characterized by bone fragility. Cyclophilin B has also been implicated as a marker in several cancers, including glioblastomas, neuroblastomas, and gastric cancers. In gastric cancer, Stat3 suppression of miR-520d-5p leads to upregulation of its downstream target cyclophilin B, and enables the growth and survival of these cancer cells.

Background References

Pyott, SM et al. (2011) Hum Mol Genet. 20:1595 .
Li, T et al. (2017) Cancer Res. 77(5):1227.



Immunocytochemical labeling of cyclophilin B in methanol:acetone (1:1) fixed human A549 lung cancer cells. The cells were labeled with mouse monoclonal anti-cyclophilin B (CM0191). The antibody was detected using goat anti-mouse DyLight® 594.



Western blot analysis of human LNCaP (lane 1), MCF7 (lane 2), MDA-MB-231 (lane 3), and MeWo (lane 4) cell lysates, as well as human recombinant full-length cyclophilin B (lane 5) and cyclophilin A (lane 6). The blot was probed with mouse monoclonal anti-cyclophilin B (CM0191) at 1:500.

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Immunogen

Clone M019 was generated from a proprietary antigen related to cyclophilin B from the MCF7 breast cancer cell line.

Buffer and Storage

Mouse monoclonal antibody purified with protein G chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Applications

WB	1:1000
ELISA	1:2000
ICC	1:100
IP	1:100

Species Reactivity

Hu

End user should determine optimal dilution for their particular applications and experiments.

Western blot membranes were incubated with diluted antibody in 5% non-fat milk, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

Clone M019 detects a 20 kDa* band corresponding to the molecular mass of cyclophilin B on SDS-PAGE immunoblots of human LNCaP, MeWo, MCF7, and MDA-MB-231 cell lysates, as well as full length recombinant cyclophilin B, but does not detect recombinant cyclophilin A. The antibody can be used for western blot, immunoprecipitation, protein ELISA, and immunocytochemistry.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related Products

SK6030 Stat Phospho-Regulation Antibody Sampler Kit

SM2631 Stat3 (N-terminal region) Mouse Monoclonal

CK7700 Cell Structure Labeling Immunocytochemistry Kit

AM0171 Annexin A5 Mouse Monoclonal

AK6730 Annexin Family Antibody Sampler Kit

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