

CyPB (1B3): sc-517566

BACKGROUND

The immunosuppressant cyclosporin A (CsA) forms a trimolecular complex with cyclophilin and calcineurins to inhibit calcineurin phosphatase activity. Cyclophilins are conserved, ubiquitous and abundant cytosolic peptidyl-prolyl *cis-trans* isomerases that accelerate the isomerization of XaaPro peptide bonds and the refolding of proteins. Human cyclophilin A (CyPA), an intracellular protein of 165 amino acids, is the target of the Cyclosporin A and is encoded by a single unique gene conserved from yeast to humans. CyPA is known for its involvement in T cell differentiation and proliferation and is highly expressed in brain. CyPA is incorporated into the virion of the type 1 human immunodeficiency virus (HIV-1) via a direct interaction with the capsid domain of the viral G_{αγ} polyprotein and is crucial for efficient viral replication. Cyclophilin B (CyPB) is a member of the cyclophilin family with specific N- and C-terminal extensions. Unlike CyPA, CyPB has a signal sequence leading to its translocation in the endoplasmic reticulum. CyPB is secreted in biological fluids such as blood or milk and binds to a specific receptor present on the human lymphoblastic cell line Jurkat and on human peripheral blood lymphocytes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PPIB (human) mapping to 15q22.31; Ppib (mouse) mapping to 9 C.

SOURCE

CyPB (1B3) is a mouse monoclonal antibody raised against recombinant CyPB of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CyPB (1B3) is recommended for detection of CyPB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for CyPB siRNA (h): sc-35145, CyPB siRNA (m): sc-35146, CyPB shRNA Plasmid (h): sc-35145-SH, CyPB shRNA Plasmid (m): sc-35146-SH, CyPB shRNA (h) Lentiviral Particles: sc-35145-V and CyPB shRNA (m) Lentiviral Particles: sc-35146-V.

Molecular Weight of CyPB: 24 kDa.

SELECT PRODUCT CITATIONS

- Nelczyk, A.T., Ma, L., Gupta, A.D., Gamage, H.E.V., McHenry, M.T., Henn, M.A., Kadiri, M., Wang, Y., Krawczynska, N., Bendre, S., He, S., Shahoei, S.H., Madak-Erdogan, Z., Hsiao, S.H., Saleh, T., Carpenter, V., Gewirtz, D.A., Spinella, M.J. and Nelson, E.R. 2022. The nuclear receptor TLX (NR2E1) inhibits growth and progression of triple-negative breast cancer. *Biochim. Biophys. Acta Mol. Basis Dis.* 1868: 166515.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.