

Cyclophilin E (N-18): sc-70049

BACKGROUND

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. Cyclophilin E, also known as CyPE, Cyclophilin 33, CyP33, PPIase E or Rotamase E, is a ubiquitously expressed nuclear RNA-binding cyclophilin. It contains an N-terminal RNA binding domain (RRM) and a C-terminal cyclophilin domain. Cyclophilin E specifically binds to mRNA and, in accordance with this binding, the PPIase activity of Cyclophilin E is stimulated. In addition, Cyclophilin E can bind to the third PHD zinc finger domain of MLL (myeloid/lymphoid or mixed-lineage leukemia protein) and modify the effects of MLL on target genes. More specifically, the overexpression of Cyclophilin E is known to negatively regulate/inhibit the transcription of HoxC8 and HoxC9 genes. This inhibition occurs via the ability of Cyclophilin E to increase HDAC1 binding to the repression domain of MLL.

REFERENCES

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3. Anderson, M., et al. 2002. A new family of cyclophilins with an RNA recognition motif that interact with members of the trx/MLL protein family in *Drosophila* and human cells. *Dev. Genes Evol.* 212: 107-113.
4. Xia, Z.B., et al. 2003. MLL repression domain interacts with histone deacetylases, the polycomb group proteins HPC2 and BMI-1, and the corepressor C-terminal-binding protein. *Proc. Natl. Acad. Sci. USA* 100: 8342-8347.
5. Laidlaw, A.M., et al. 2006. Extent of over-expression of hepatocyte growth factor receptor in colorectal tumours is dependent on the choice of normaliser. *Biochem. Biophys. Res. Commun.* 341: 1017-1021.
6. Khan, S.G., et al. 2006. Reduced XPC DNA repair gene mRNA levels in clinically normal parents of xeroderma pigmentosum patients. *Carcinogenesis* 27: 84-94.
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CHROMOSOMAL LOCATION

Genetic locus: PPIE (human) mapping to 1p34.2; Ppie (mouse) mapping to 4 D2.2.

SOURCE

Cyclophilin E (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Cyclophilin E of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-70049 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cyclophilin E (N-18) is recommended for detection of Cyclophilin E of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cyclophilin E (N-18) is also recommended for detection of Cyclophilin E in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Cyclophilin E siRNA (h): sc-77069, Cyclophilin E siRNA (m): sc-77070, Cyclophilin E shRNA Plasmid (h): sc-77069-SH, Cyclophilin E shRNA Plasmid (m): sc-77070-SH, Cyclophilin E shRNA (h) Lentiviral Particles: sc-77069-V and Cyclophilin E shRNA (m) Lentiviral Particles: sc-77070-V.

Molecular Weight of Cyclophilin E: 33 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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


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Try **Cyclophilin E (9E18): sc-100700**, our highly recommended monoclonal alternative to Cyclophilin E (N-18).