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Diagnostik & molekulare Diagnostik



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### Zuschläge

- Mindermengenzuschlag
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- Gefahrgutzuschlag
- Expressversand

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# Cyclophilin F (h2): 293T Lysate: sc-177111

## 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. Human cyclophilin A (CyPA), an intracellular protein of 165 amino acids, is the target of cyclosporin A (CsA) and is encoded by a single unique gene conserved between yeast to humans. Cyclophilin B (CyPB) is secreted in biological fluids such as blood or milk, and binds to a specific receptor present on human peripheral blood lymphocytes and expressed in Jurkat cells, a line of human lymphoblasts. Cyclophilin D (CyPD) is a widely expressed cytoplasmic protein that catalyzes the *cis-trans* isomerization of proline imidic peptide bonds in oligopeptides. Cyclophilin F (CyPF), is also known as PPIF, Cyp-D or Rotamase F, is a 207 amino acid mitochondrial matrix protein involved in the induction of necrotic and apoptotic cell death through the activation of the mitochondrial permeability transition (mPT) pore.

## REFERENCES

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2. Basso, E., et al. 2005. Properties of the permeability transition pore in mitochondria devoid of Cyclophilin D. *J. Biol. Chem.* 280: 18558-18561.
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4. Hu, P., et al. 2007. Ontogeny of rdh9 (Crad3) expression: ablation causes changes in retinoid and steroid metabolizing enzymes, but RXR and androgen signaling seem normal. *Biochim. Biophys. Acta* 1770: 694-705.
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6. Du, H., et al. 2008. Cyclophilin D deficiency attenuates mitochondrial and neuronal perturbation and ameliorates learning and memory in Alzheimer's disease. *Nat. Med.* 14: 1097-1105.
7. Luvisetto, S., et al. 2008. Enhancement of anxiety, facilitation of avoidance behavior, and occurrence of adult-onset obesity in mice lacking mitochondrial cyclophilin D. *Neuroscience* 155: 585-596.
8. Halestrap, A.P., et al. 2009. The role of the mitochondrial permeability transition pore in heart disease. *Biochim. Biophys. Acta* 1787: 1402-1415.
9. Li, V., et al. 2009. Role of cyclophilin D-dependent mitochondrial permeability transition in glutamate-induced calcium deregulation and excitotoxic neuronal death. *Exp. Neurol.* 218: 171-182.

## CHROMOSOMAL LOCATION

Genetic locus: PPIF (human) mapping to 10q22.3.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PRODUCT

Cyclophilin F (h2): 293T Lysate represents a lysate of human Cyclophilin F transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

Cyclophilin F (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Cyclophilin F antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## RESEARCH USE

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

## PROTOCOLS

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