



Qty: 1 mL

Mouse anti-Cyclophilin A

Catalog No. 39-1100

Lot No.

Mouse anti-Cyclophilin A

FORM

This monoclonal antibody is supplied as a 1 mL aliquot of tissue culture supernatant containing 0.1% sodium azide.

CLONE: ZC001

ISOTYPE: Mouse IgG₁-kappa

IMMUNOGEN

Recombinant protein containing the N-terminal region of human cyclophilin A (CyP-A, peptidyl-prolyl cis-trans isomerase A (EC) (PPIase), rotamase, cyclosporin A-binding protein), which is 96% homologous to rat and mouse

SPECIFICITY

This antibody is specific for the N-terminal region of the cyclophilin A protein. On Western blots, it identifies the target band at ~17 kDa.

REACTIVITY

Reactivity has been confirmed with human T47D cell lysates by Western blotting. Based on amino acid sequence homology, reactivity with mouse and rat is expected.

Sample	ELISA	Western Blotting
Human	ND	+++
Mouse	ND	ND
Rat	ND	ND
Immunogen	+++	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

ELISA: 1:100 - 1:1000
Western Blotting: 1:100 - 1:300

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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BACKGROUND

Cyclophilin A (peptidyl-prolyl cis-trans isomerase A (EC) (PPIase), rotamase, cyclosporin A-binding protein) belongs to the immunophilin family of soluble cytosolic receptors, capable of binding to one of two major immunosuppressant agents -- cyclosporin A (CsA) or FK506. Proteins that bind FK506 are called FK506 binding proteins (FKBPs), while those that bind cyclosporin A are called cyclophilins (CyP).

Both CyP:CsA and FKBP:FK506 complexes have been shown to inhibit calcineurin, a calcium- and calmodulin-dependent protein phosphatase that has been implicated as an important signaling enzyme in T-cell activation, providing a possible mechanism of immunosuppression by CsA and FK506. Immunophilins function as peptidyl prolyl cis-trans-isomerases (PPIases) whose activity is inhibited by their respective immunosuppressant compounds. As PPIases, immunophilins accelerate folding of some proteins both *in vivo* and *in vitro* by catalyzing slow steps in the initial folding and rearrangement of proline-containing proteins.

Within the cyclophilin family, there are several different proteins with a high degree of homology including CyPA, CyPB and CyPC. CyPA, also known as CyP-18, is the most abundant and ubiquitous cyclophilin in vertebrate tissue. It is present in T-cells and is expressed by thyroid tumors. The molecule is about 18 kDa, and is mainly located in cytoplasm and nucleus.

REFERENCES

1. Ke H, et al. *PNAS* 88:9483-9487, 1991.
2. Kallen J, et al. *Nature* 353:276-279, 1991.
3. Meier U, et al. *Hum Repro* 10:1305-1310, 1995.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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