



Qty: 100 µg/200 µl

## Mouse anti-Cyclophilin B

For Research Use Only

Catalog No. 37-0600

Lot No.

## Mouse anti-Cyclophilin B

### FORM

This monoclonal antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: 4E11G1

ISOTYPE: IgG<sub>1</sub>-kappa

### IMMUNOGEN

Recombinant protein encompassing the C-terminal region of human Cyclophilin B

### SPECIFICITY

This antibody is specific for the ~20 kDa Cyclophilin B protein.

### REACTIVITY

Reactivity was confirmed with a Cyclophilin B-transfected 293 cell line as well as T-47D and MCF-7 breast carcinoma cell lines.

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

(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: 0.1-1 µg/ml  
Western Blotting: 1-3 µg/ml

### 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 B (CyPB) is a cyclosporin A-binding protein and a peptidyl prolyl isomerase (PPI) that is a member of the immunophilin family of soluble cytosolic receptors and mainly localized within the endoplasmic reticulum vesicles.<sup>1</sup> Cyclophilin B is secreted in response to inflammatory stimuli and CD147 serves as one its receptors.<sup>2</sup> The CyPB-cyclosporin A complex has been shown to inhibit calcineurin, a calcium and calmodulin dependent protein phosphatase which has been implicated as an important signaling enzyme in T-cell activation.

A recent study has shown that CyPB is important for facilitating the nuclear retrotransport and action of the somatotrophic hormone family, such as prolactin and growth hormone.<sup>3</sup> CyPB is necessary for the prolactin-induced proliferation, cell growth, and the nuclear retrotransport of prolactin. The prolactin/ CyPB complex acts as a transcriptional inducer by interacting directly with Stat5, which can ultimately enhance Stat5 DNA-binding activity and prolactin-induced, Stat5-mediated gene expression.<sup>4</sup>

**REFERENCES**

1. Allain F, et al. *J Biol Chem* 269(24) : 16537-40, 1994.
2. Yurchenko V, et al. *Biochem Biophys Res Commun* 288(4) : 786-8, 2001.
3. Ryczyn MA and Clevenger CV. *Ann NY Acad Sci* 917: 514-521, 2000.
4. Ryczyn MA and Clevenger CV. *PNAS*. 99(10): 6790-6795, 2002.

**RELATED PRODUCTS**

<b>Product</b>	<b>Clone/PAD*</b>	<b>Cat. No.</b>
Mouse anti-Stat5 (PAN)	ST5-8F7	33-5900
Mouse anti-phospho-Stat5	ST5P-4A9	33-6000
Rabbit anti-phospho-Stat5	ZyAL	71-6900
Rabbit anti-PRLr (intermediate isoform)	ZMD.106	34-4800
Mouse anti-PRLr (extracellular domain)	1A2B1	35-9200
Rabbit anti-PRLr (S1a)	ZMD.246	34-9600
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

\*PAD: Polyclonal Antibody Designation

<b>Conjugate</b>	<b>ZyMAX™ Goat x Rabbit IgG (H+L)</b>	<b>ZyMAX™ Goat x Mouse IgG (H+L)</b>
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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