



Qty: 100 µg/200 µL

Mouse anti-EphA4 Receptor

Catalog No. 37-1600

Lot No.

## Mouse anti-EphA4 Receptor

### 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 affinity.

**CLONE:** 4C8H5

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

### IMMUNOGEN

A synthetic peptide derived from the C-terminus human EphA4 receptor protein.

### SPECIFICITY

This antibody is specific for the endogenous EphA4 receptor protein. No cross-reactivity with EphA5 or EphA7 has been detected. On Western blots, this antibody identifies a band at ~110-120 kDa.

### REACTIVITY

Reactivity has been confirmed with EphA4-transfected 293T cells and mouse brain lysates by Western blot and immunoprecipitation and on transfected 293 cells and mouse hippocampus by immunohistochemistry.

Sample	Immuno-precipitation	ELISA	Western Blotting	Immuno-Histochemistry (frozen)
Human	+++	ND	++	ND
Mouse	+++	ND	++	++
Chicken	+++	ND	++	ND
Immunogen	N/A	+++	N/A	N/A

(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.

**Western Blotting:** 1-3 µg/mL

**Immunoprecipitation:** 5 µg

**Immunohistochemistry (frozen):** 3-10 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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(Rev 10/08) DCC-08-1089

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**BACKGROUND**

The Eph receptors are the largest family of receptor tyrosine kinases. They can be grouped into two subclasses based on sequence homology: the EphA and the EphB receptors<sup>1,5</sup>. The ligands for the Eph receptors are the ephrins. The EphA receptors bind ephrin-A ligands, which are tethered to the membrane by a GPI linkage, and the EphB receptors bind ephrin-B ligands, which have a membrane spanning region. The Eph receptors are widely expressed during embryonic development, including in the nervous system and the vascular system<sup>2</sup>. Ephrins and Eph receptors have been implicated in many developmental processes including neuronal network formation, guidance of cell migration, and axonal pathfinding. They remain expressed at lower levels in adult tissues and are upregulated in pathological conditions such as cancer.

EphA4 is preferentially expressed in the embryonic and adult nervous system, including the adult hippocampus, and in platelets<sup>3,4</sup>. EphA4 has previously been designated Cek8 in chicken, Tyro1 in rat, and Sek1 in mouse.

**REFERENCES**

1. Holder N, et al. *Development* 126(10):2033-2044, 1999.
2. Flanagan JD, et al. *Annu Rev Neurosci* 21:309-345, 1998.
3. Pasquale EB. *Curr Opin Cell Biol* 9(5):608-615, 1997.
4. Murai KK, et al. *Nature Neurosci* 6(2):153-160, 2003.
5. Eph Nomenclature Committee. *Cell* 90(3):403-4, 1997.

**RELATED PRODUCTS**

<b>Product</b>	<b>Clone/PAD*</b>	<b>Cat. No.</b>
Mouse anti-EphB2 Receptor	1A6C9	37-1700
Mouse anti-EphB4 Receptor	3D7G8	37-1800
Rabbit anti-ephrin-A1	ZMD.39	34-3300
Rabbit anti-ephrin-A2	ZMD.40	34-3400
Rabbit anti-ephrin-A4	ZMD.56	34-3700
Rabbit anti-ephrin-B1	ZMD.41	34-3500
Rabbit anti-ephrin-B3	ZMD.42	34-3600
Mouse anti-Chicken EphB5 Receptor	5G6H8	35-3000
Rabbit anti-EphA3 Receptor	ZMD.235	34-8500
Mouse anti-EphB4 Receptor	3D7F8	35-2900
Rabbit anti-EphA2 Receptor	ZMD.224	34-7400
Rabbit anti-EphA4 Receptor	ZMD.229	34-7900
Rabbit anti-Chicken EphB5 Receptor	ZMD.225	34-7500
Mouse anti-ephrin-B (Pan)	2D3E9	37-8100
Mouse anti-Chicken ephrin-B1	11B3	35-5900
Eph Receptor Antibody Sampler Pack		90-1100
ephrin Antibody Sampler Pack		90-1000

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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