**Qty:** 100 µg/200 µl

Mouse anti-ephrin-B (Pan)

For Research Use Only

**Catalog No. 37-8100**
**Lot No.**

# Mouse anti-ephrin-B (Pan)

## 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:** 2D3E9 **ISOTYPE:** Mouse $IgG_1$-kappa

## IMMUNOGEN
Synthetic peptide derived from the ephrin-B sequence.

## SPECIFICITY
This antibody recognizes over-expressed and endogenous ephrin-B, as well as phosphorylated ephrin-B. On Western blots it identifies a band at ~50-60 kDa.

## REACTIVITY
Reactivity has been confirmed with human 293T and MCF10A lysates and chicken cell lysates. Based on amino acid sequence homology, cross-reactivity with mouse is expected.

| Sample | Immuno-precipitation (Kin. Act.) | ELISA | Western Blotting |
|---|---|---|---|
| Human | +++ | ND | +++ |
| Chicken | +++ | ND | ++ |
| Immunogen | ND | +++ | 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.

**Western Blotting:** 1-3 ug/ml
**Immunoprecipitation:** 5 ug/ml
**ELISA:** 1-3 ug/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)

## BACKGROUND

Ephrins are a family of proteins that bind to the tyrosine kinase Eph receptor. Their function is still under investigation, but they are suspected to play an important role in morphogenesis. The ephrins can be grouped into two classes: those that are tethered to the membrane by a GPI linkage, called ephrin-A proteins (which bind to EphA receptors), and those with a membrane-spanning region, called ephrin-B proteins (which bind to EphB receptors). Ephrins are expressed in the embryo in various tissues in the forming mesoderm, endoderm and nervous system in all of the vertebrate species in which they have been identified[1]. Ephrin-B3, also known as NLERK-2, Elk-L3, EFL-6, ELF-3 and LERK-8 is a member of the ephrin-B protein family[2]. Ephrin-B3 binds EphA4, EphB1, EphB2 and EphB3[3,4].

Ephrin-B1 is one of the transmembrane ligands for the EphB2 receptor. In the embryo, EphB2 and ephrin-B1 participate in neuronal axon guidance, neural crest cell migration, the formation of blood vessels and the development of facial structures and the inner ear. EphB2 and ephrin-B1 can both signal through their cytoplasmic domains and become phosphorylated when bound to each other. Tyrosine phosphorylation regulates EphB2 signaling and likely also ephrin-B1 signaling[5].

## REFERENCES


1. Holder N and Klein R. *Development* 126(10): 2033-2044, 1999.
2. Ephrin Nomenclature Committee. *Cell* 90(3): 403-404, 1997.
3. Flanagan JG, and Vanderhagen P. *Annu Rev Neurosci* 21: 309-345, 1998.
4. Pasquale EB. *Curr opin Cell Biol* 9(5): 608-615, 1997.
5. Kalo MS et al. *J Biol Chem* 276(42): 38940-38948, 2001.


## RELATED PRODUCTS

| *Product* | *Clone/PAD** | *Cat. No.* |
|---|---|---|
| Rabbit anti-Ephrin-A1 | ZMD.39 | 34-3300 |
| Rabbit anti-Ephrin-A2 | ZMD.40 | 34-3400 |
| Rabbit anti-Ephrin-A3 | ZMD.56 | 34-3700 |
| Rabbit anti-Ephrin-B1 | ZMD.41 | 34-3500 |
| Rabbit anti-Ephrin-B3 | ZMD.42 | 34-3600 |
| Rabbit anti-EphA2 Receptor | ZMD.224 | 34-7400 |
| Rabbit anti-EphA3 Receptor | ZMD.235 | 34-8500 |
| Rabbit anti-EphA4 Receptor | ZMD.229 | 34-7900 |
| Mouse anti-EphB4 Receptor | 3D7F8 | 35-2900 |
| Mouse anti-Chicken EphB4 Receptor | 5G6H8 | 35-3000 |
| Protein A | Sepharose® 4B | 10-1041 |
| rec-Protein G | Sepharose® 4B | 10-1241 |

*PAD: Polyclonal Antibody Designation

| 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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