



**Qty:** 100 µg/400 µl

**Rabbit anti-ephrin-A1**

**Catalog No.** 34-3300

**Lot No.** See product label

## Rabbit anti-ephrin-A1

### FORM

This polyclonal antibody is supplied as a 400 µl aliquot at a concentration of 0.25 mg/ml in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. The antibody is epitope-affinity-purified from rabbit antiserum.

**PAD:** ZMD.39

### IMMUNOGEN

Synthetic peptide derived from the C-terminal end of mouse ephrin-A1 protein.

### SPECIFICITY

This antibody is specific for the ephrin-A1 protein.

### REACTIVITY

Reactivity is confirmed with a chimeric protein consisting of the extracellular domain of mouse ephrin-A1 and the Fc region of human IgG<sub>1</sub>. Cross-reactivity with human ephrin-A1 is confirmed with IHC experiments on human tissue sections and this reactivity was expected because of the 85% shared amino acid identity in the extracellular domain.

Sample	Western Blotting	Immunoprecipitation	Immunohistochemistry (FFPE)
Mouse	+++	+++	NT
Human	NT	NT	++

(Excellent +++, Good++, Poor +, No reactivity 0, Not tested NT)

### 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:** 1-5 µg/mL  
**Immunoprecipitation:** 5-10 µg/ IP reaction  
**Immunohistochemistry:** 4-10 µg/mL

Please note that immunohistochemical assays were optimized on formalin-fixed, paraffin-embedded tissue sections and Heat Induced Epitope Retrieval (HIER) with EDTA, pH 8.0 was required for optimal staining. Please contact Invitrogen Technical Services at [tech@invitrogen.com](mailto:tech@invitrogen.com) or 1-800-874-4494 for more information on HIER procedures.

### 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

Ephrins are the ligands which bind to the Eph receptor subfamily, the largest group of the receptor tyrosine kinase family. Both ephrins and Eph receptors are broadly expressed throughout the ectoderm, mesoderm, and endoderm of vertebrate embryos.<sup>1</sup> The interaction of ephrins with the appropriate Eph receptor(s) has been implicated in a wide spectrum of functions in vertebrate morphogenesis, including the accurate migration of embryonic cells,<sup>2</sup> formation of boundaries between structures (i.e. rhombomeres and somites), and the control of cytoskeletal changes which dictate cellular shape and adhesion during development.

Two classes of ephrins exist: Class A ephrins are tethered to the membrane by a GPI linkage and bind primarily to EphA receptors; Class B ephrins contain a membrane-spanning region and bind predominantly to EphB receptors.

Ephrin-A1, also known as B61, LERK-1, and EFL1,<sup>3</sup> is a Class A protein. It has been shown to bind the EphA1, EphA2, EphA3, EphA4, EphA5, EphA6, and EphB2 receptors.<sup>4</sup>

## REFERENCES

1. Holder N, Klein R. *Development* 126(10):2033-2044, (1999)
2. Flanagan JG, Vandehaeghen P. *Annu Rev Neurosci* 21:309-345, (1998)
3. Unified nomenclature for Eph family receptors and their ligands, the ephrins. Eph Nomenclature Committee. *Cell* 90(3):403-404, (1997)
4. Pasquale EB. *Curr Opin Cell Biol* 9(5):608-615, (1997)

## RELATED PRODUCTS

<b>Product</b>	<b>Clone/PAD*</b>	<b>Cat. No.</b>
Rabbit anti-ephrin-A1	ZMD.39	18-2301
Rabbit anti-ephrin-A2	ZMD.40	34-3400
Rabbit anti-ephrin-A2	ZMD.40	18-2302
Rabbit anti-ephrin-A4	ZMD.56	34-3700
Rabbit anti-ephrin-A4	ZMD.56	18-2303
Rabbit anti-ephrin-B1	ZMD.41	34-3500
Rabbit anti-ephrin-B1	ZMD.41	18-2304
Rabbit anti-ephrin-B3	ZMD.42	34-3600
Rabbit anti-ephrin-B3	ZMD.42	18-2305
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 ephrin-B1	11B3	35-5900
Mouse anti-Chicken EphB5 Receptor	5G6H8	35-3000
Rabbit anti-Chicken EphB5 Receptor	ZMD.225	34-7500

\*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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