

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Ephrin-A2 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant mouse (rm) Ephrin-A1, rmEphrin-A4, and rmEphrin-A5 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Ephrin-A2 Met1-Asn184 Accession # P52801
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

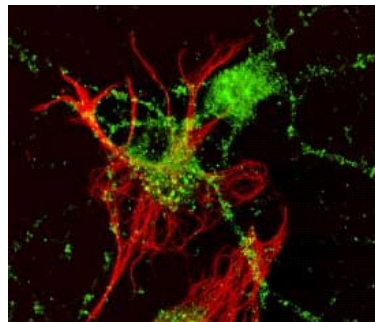
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse Ephrin-A2 Fc Chimera (Catalog # <a href="#">603-A2</a> )
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Blockade of Receptor-ligand Interaction</b>	In a functional ELISA, 1-5 µg/mL of this antibody will block 50% of the binding of 10 ng/mL of Recombinant Mouse Ephrin-A2 Fc Chimera (Catalog # <a href="#">603-A2</a> ) to immobilized Recombinant Rat EphA5 Fc Chimera (Catalog # <a href="#">541-A5</a> ) coated at 2 µg/mL (100 µL/well). At 50 µg/mL, this antibody will block >90% of the binding.	

## DATA

### Immunocytochemistry



**Ephrin-A2 in Rat Hippocampal Neurons.** Ephrin-A2 was detected in immersion fixed rat hippocampal neurons using 10 µg/mL Goat Anti-Mouse Ephrin-A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF603) for 3 hours at room temperature. Neurons were stained (green) and glial cells were labeled by using anti-GFAP antibodies (red). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Ephrin-A2, also known as ELF-1, Cek7-L and LERK-6 (1), is a member of the Ephrin ligand family which binds members of the Eph receptor family. All ligands share a conserved extracellular sequence, which most likely corresponds to the receptor binding domain. This conserved sequence consists of approximately 125 amino acids (aa) and includes four invariant cysteines. The A-class ligands have a GPI anchor following the conserved sequence. Ephrin-A2 has been shown to bind EphA2, EphA3, EphA4, EphA5, EphA6, EphA7, and EphA8 (2, 3). The extracellular domains of human and mouse Ephrin-A2 share 93% aa identity. Only membrane-bound or Fc-clustered ligands are capable of activating the receptor *in vitro*. While soluble monomeric ligands bind the receptor they do not induce receptor autophosphorylation and activation (2). *In vivo*, the ligands and receptors display reciprocal expression.(3) It has been found that nearly all receptors and ligands are expressed in developing and adult neural tissue (3). The Eph/Ephrin families also appear to play a role in angiogenesis (3).

### References:

1. *Eph Nomenclature Committee [letter]* (1997) Cell **9**:403.
2. Flanagan, J.G. and P. Vanderhaegen (1998) Annu. Rev. Neurosci. **21**:309.
3. Pasquale, E.B. (1997) Curr. Opin. Cell. Biol. **9**:608.