

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Ephrin-B1 in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human (rh) Ephrin-A5, recombinant mouse (rm) Ephrin-A1, rhEphrin-A3, rmEphrin-A2, rmEphrin-B2, and rmEphrin-B3 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Ephrin-B1 Lys30-Ser229 Accession # AAA53231
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Ephrin-B1 Fc Chimera (Catalog # 473-EB)

PREPARATION AND STORAGE

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

BACKGROUND

Ephrin-B1, also known as LERK-2, ELK-L, EFL-3, Cek5-L, and STRA-1 (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 and includes four invariant cysteines. The B-class ligands are transmembrane proteins which can become tyrosine phosphorylated upon receptor ligation. The cytoplasmic domains are approximately 80 amino acids long and are highly conserved, especially the last 33 amino acids. Several signaling molecules have been shown to interact with the cytoplasmic region, although specific signaling roles have yet to be elucidated. Ephrin-B1 has been shown to bind EphA3, EphB1, EphB2, EphB3, and EphB4 (2, 3). The extracellular domains of human and mouse Ephrin-B1 share 94% amino acid identity. Only membrane-bound or Fc-clustered ligands are capable of activating the receptor *in vitro*. Soluble monomeric ligands bind the receptor but 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 **90**:403.
2. Flanagan, J.G. and P. Vanderhaeghen (1998) Annu. Rev. Neurosci. **21**:309.
3. Pasquale, E.B. (1997) Curr. Opin. Cell Biol. **9**:608.