

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Ephrin-B1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse Ephrin-A1, -A2, -A4, -B2, recombinant human Ephrin-A3, -A4, -A5, or -B3 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 94038
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Ephrin-B1 Lys30-Ser229 Accession # AAA53231
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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).

PRODUCT SPECIFIC NOTICES

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