

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Ephrin-A1 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) Ephrin-A1 is observed and less than 1% cross-reactivity with recombinant mouse (rm) Ephrin-B1, rmEphrin-A5, rmEphrin-A4, rmEphrin-A2, and rmEphrin-B1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Ephrin-A1 Asp19-Ser182 Accession # P52793
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

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-A1 Fc Chimera (Catalog # 602-A1)

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	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 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-A1, also known as B61, LERK-1, and EFL-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 A-class ligands have a GPI anchor following the conserved sequence. Ephrin-A1 has been shown to bind EphA1, EphA2, EphA3, EphA4, EphA5, EphA6, EphA7, and EphB1 (2, 3). The extracellular domains of human and mouse Ephrin-A1 share 85% amino acid 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. *Unified nomenclature for Eph family receptors and their ligands, the ephrins*. Eph Nomenclature Committee [letter]. (1997) Cell **90**: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.