

DESCRIPTION

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| Species Reactivity | Human |
| Specificity | Detects human Ephrin-A3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant human (rh) Ephrin-A5 is observed and no cross-reactivity with rhEphrin-A4, recombinant mouse (rm) Ephrin-A1, rmEphrin-B1, rhEphrin-B2, and rhEphrin-B3 is observed. |
| Source | Monoclonal Mouse IgG _{2A} Clone # 80814 |
| Purification | Protein A or G purified from ascites |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human Ephrin-A3 Asn31-Ser209 Accession # AAA52368 |
| Formulation | 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. |

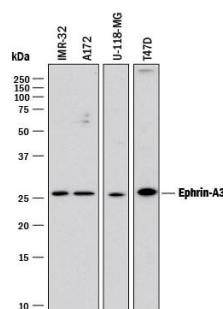
APPLICATIONS

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.

| | Recommended Concentration | Sample |
|---------------------|----------------------------------|---------------|
| Western Blot | 2 µg/mL | See Below |

DATA

Western Blot



Detection of Human Ephrin-A3 by Western Blot. Western blot shows lysates of IMR-32 human neuroblastoma cell line, A172 human glioblastoma cell line, U-118-MG human glioblastoma/astrocytoma cell line, and T47D human breast cancer cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human Ephrin-A3 Monoclonal Antibody (Catalog # MAB359) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Ephrin-A3 at approximately 26 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

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| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | 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 |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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-A3, also known as Ehk1-L, EFL-2, and LERK-3 (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-A3 has been shown to bind EphA2, EphA3, EphA4, EphA5, EphA6, EphA7, EphA8, and EphB1 (2, 3). The extracellular domains of human and mouse Ephrin-A3 share 96% 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. Eph Nomenclature Committee [letter] (1997) Cell **90**:403.
2. Flanagan, J.G. and P. Vanderhaeghe (1998) Annu. Rev. Neurosci. **21**:309.
3. Pasquale, E.B. (1997) Curr. Opin. Cell. Biol. **9**:608.