# Human Ephrin-A4 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF369

## DESCRIPTION

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| **Species Reactivity** | Human |
| **Specificity** | Detects human Ephrin-A4 in direct ELISAs and Western blots. In direct ELISAs, approximately 25% cross-reactivity with recombinant mouse Ephrin-A4 is observed. |
| **Source** | Polyclonal Goat IgG |
| **Purification** | Antigen Affinity-purified |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant human Ephrin-A4<br>Leu26-Gly171<br>Accession # P52798 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS. |

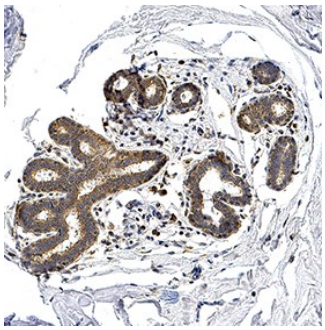
## APPLICATIONS

**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** | 0.1 µg/mL | Recombinant Human Ephrin-A4 Fc Chimera (Catalog # 369-EA) |
| **Immunocytochemistry** | 5-15 µg/mL | See Below |
| **Immunohistochemistry** | 3-15 µg/mL | See Below |

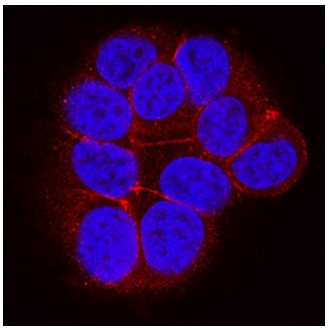
## DATA

**Immunohistochemistry**



**Ephrin-A4 in Human Mammary Glands.** Ephrin-A4 was detected in immersion fixed paraffin-embedded sections of normal human mammary glands using Goat Anti-Human Ephrin-A4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF369) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and plasma membrane of glandular epithelium. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

**Immunocytochemistry**



**Ephrin-A4 in MCF-7 Human Cell Line.** Ephrin-A4 was detected in immersion fixed MCF-7 human breast cancer cell line using Goat Anti-Human Ephrin-A4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF369) at 5 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to plasma membrane. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

## PREPARATION AND STORAGE

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| **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.<br>*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.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## BACKGROUND

Ephrin-A4, also known as LERK-4 and EFL-4, (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-A4 has been shown to bind EphA2, EphA3, EphA4, EphA5, EphA6, EphA7, and EphB1 (2, 3). The extracellular domains of human and mouse Ephrin-A4 share 80% 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. Vanderhaegen (1998) Annu. Rev. Neurosci. **21**:309.
3. Pasquale, E.B. (1997) Curr. Opin. Cell. Biol. **9**:608.




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