

**EphB4 Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7625D****Specification**

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**EphB4 Antibody - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">P54760</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>

**EphB4 Antibody - Additional Information****Gene ID** 2050**Other Names**

Ephrin type-B receptor 4, Hepatoma transmembrane kinase, Tyrosine-protein kinase TYRO11, EPHB4, HTK, MYK1, TYRO11

**Target/Specificity**

This EphB4 antibody is generated from rabbits immunized with human recombinant EphB4 protein.

**Dilution**WB~~1:1000  
IHC-P~~1:10~50**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

EphB4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**EphB4 Antibody - Protein Information****Name** EPHB4**Synonyms** HTK, MYK1, TYRO11**Function** Receptor tyrosine kinase which binds promiscuously transmembrane ephrin-B family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into

neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Together with its cognate ligand/functional ligand EFNB2 it is involved in the regulation of cell adhesion and migration, and plays a central role in heart morphogenesis, angiogenesis and blood vessel remodeling and permeability. EPHB4-mediated forward signaling controls cellular repulsion and segregation from EFNB2-expressing cells.

#### Cellular Location

Cell membrane; Single-pass type I membrane protein

#### Tissue Location

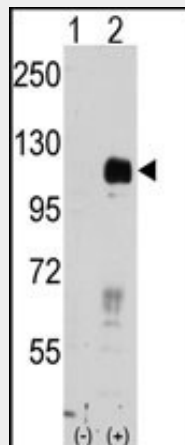
Abundantly expressed in placenta but also detected in kidney, liver, lung, pancreas, skeletal muscle and heart. Expressed in primitive and myeloid, but not lymphoid, hematopoietic cells. Also observed in cell lines derived from liver, breast, colon, lung, melanocyte and cervix.

#### EphB4 Antibody - Protocols

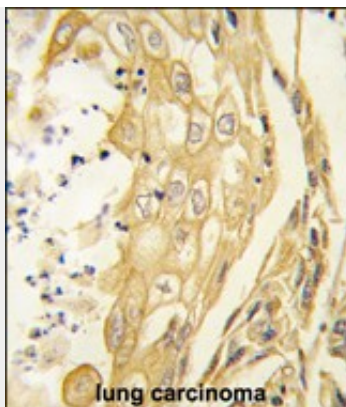
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### EphB4 Antibody - Images



Western blot analysis of EphB4 (arrow) using rabbit polyclonal EphB4 Antibody (Cat.#AP7625d).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the EphB4 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with the EphB4 antibody (Cat.#AP7625d), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

### **EphB4 Antibody - Background**

Ephrin receptors and their ligands, the ephrins, mediate numerous developmental processes, particularly in the nervous system. Based on their structures and sequence relationships, ephrins are divided into the ephrin-A (EFNA) class, which are anchored to the membrane by a glycosylphosphatidylinositol linkage, and the ephrin-B (EFNB) class, which are transmembrane proteins. The Eph family of receptors are divided into 2 groups based on the similarity of their extracellular domain sequences and their affinities for binding ephrin-A and ephrin-B ligands. Ephrin receptors make up the largest subgroup of the receptor tyrosine kinase (RTK) family. EphB4 binds to ephrin-B2 and plays an essential role in vascular development.

### **EphB4 Antibody - References**

Steinle, J.J., et al., J. Biol. Chem. 277(46):43830-43835 (2002). Suenobu, S., et al., Biochem. Biophys. Res. Commun. 293(3):1124-1131 (2002). Wang, Z., et al., Blood 99(8):2740-2747 (2002). Wilson, M.D., et al., Nucleic Acids Res. 29(6):1352-1365 (2001). Wilkinson, D.G., Nat Rev Neurosci 2(3):155-164 (2001).

### **EphB4 Antibody - Citations**

- [PDGFR \$\beta\$  reverses EphB4 signaling in alveolar rhabdomyosarcoma.](#)
- [Eph/ephrin profiling in human breast cancer reveals significant associations between expression level and clinical outcome.](#)