

**EPHB2 / EPH Receptor B2 Antibody (Internal)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS10610**

**Specification**

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**EPHB2 / EPH Receptor B2 Antibody (Internal) - Product Information**

Application	IHC
Primary Accession	<a href="#">P29323</a>
Reactivity	Human, Mouse, Rabbit, Zebrafish, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	117kDa KDa

**EPHB2 / EPH Receptor B2 Antibody (Internal) - Additional Information**

**Gene ID** 2048

**Other Names**

Ephrin type-B receptor 2, 2.7.10.1, Developmentally-regulated Eph-related tyrosine kinase, ELK-related tyrosine kinase, EPH tyrosine kinase 3, EPH-like kinase 5, EK5, hEK5, Renal carcinoma antigen NY-REN-47, Tyrosine-protein kinase TYRO5, Tyrosine-protein kinase receptor EPH-3, EPHB2, DRT, EPHT3, EPTH3, ERK, HEK5, TYRO5

**Target/Specificity**

Human EPHB2. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

**Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

**Precautions**

EPHB2 / EPH Receptor B2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**EPHB2 / EPH Receptor B2 Antibody (Internal) - Protein Information**

**Name** EPHB2

**Synonyms** DRT, EPHT3, EPTH3, ERK, HEK5, TYRO5

**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. Functions in axon guidance during development. Involved in the guidance of commissural axons, that form a major interhemispheric connection between the 2 temporal lobes of the cerebral cortex. Also involved in guidance of contralateral inner ear efferent growth cones at the midline

and of retinal ganglion cell axons to the optic disk. In addition to axon guidance, also regulates dendritic spines development and maturation and stimulates the formation of excitatory synapses. Upon activation by EFN1, abolishes the ARHGAP15-mediated negative regulation on excitatory synapse formation. Controls other aspects of development including angiogenesis, palate development and in inner ear development through regulation of endolymph production. Forward and reverse signaling through the EFN2/EPHB2 complex regulate movement and adhesion of cells that tubularize the urethra and septate the cloaca. May function as a tumor suppressor. May be involved in the regulation of platelet activation and blood coagulation (PubMed:<a href="http://www.uniprot.org/citations/30213874" target="\_blank">30213874</a>).

#### **Cellular Location**

Cell membrane; Single-pass type I membrane protein. Cell projection, axon. Cell projection, dendrite

#### **Tissue Location**

Brain, heart, lung, kidney, placenta, pancreas, liver and skeletal muscle. Preferentially expressed in fetal brain

#### **Volume**

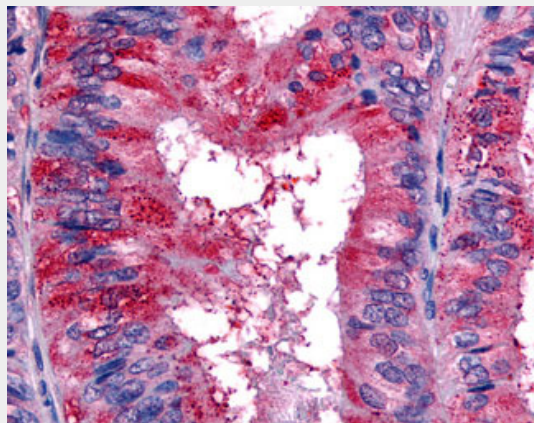
50 µl

### **EPHB2 / EPH Receptor B2 Antibody (Internal) - 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](#)

### **EPHB2 / EPH Receptor B2 Antibody (Internal) - Images**



Anti-EPHB2 / EPH Receptor B2 antibody IHC of human Colon, Carcinoma.

### **EPHB2 / EPH Receptor B2 Antibody (Internal) - Background**

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. Functions in axon guidance during development. Involved in the guidance of commissural axons, that form a major interhemispheric connection between the 2 temporal lobes of the cerebral cortex. Also involved in guidance of contralateral inner ear efferent growth cones at the midline and of retinal ganglion cell axons to the optic disk. In addition to axon guidance, also regulates dendritic spines development and maturation and stimulates the formation of excitatory synapses. Upon activation by EFNB1, abolishes the ARHGEF15-mediated negative regulation on excitatory synapse formation. Controls other aspects of development including angiogenesis, palate development and in inner ear development through regulation of endolymph production. Forward and reverse signaling through the EFNB2/EPHB2 complex regulate movement and adhesion of cells that tubularize the urethra and septate the cloaca. May function as a tumor suppressor.

### **EPHB2 / EPH Receptor B2 Antibody (Internal) - References**

- Kiyokawa E., et al. *Cancer Res.* 54:3645-3650(1994).
- Ikegaki N., et al. *Hum. Mol. Genet.* 4:2033-2045(1995).
- Tang X.X., et al. *Oncogene* 17:521-526(1998).
- Gregory S.G., et al. *Nature* 441:315-321(2006).
- Fox G.M., et al. *Oncogene* 10:897-905(1995).