

EPHB2 / EPH Receptor B2 Antibody (aa17-200, clone 2D12C6)
Mouse Monoclonal Antibody
Catalog # ALS13050**Specification****EPHB2 / EPH Receptor B2 Antibody (aa17-200, clone 2D12C6) - Product Information**

Application	IF, IHC
Primary Accession	P29323
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	117kDa KDa

EPHB2 / EPH Receptor B2 Antibody (aa17-200, clone 2D12C6) - 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

Reconstitution & Storage

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

EPHB2 / EPH Receptor B2 Antibody (aa17-200, clone 2D12C6) is for research use only and not for use in diagnostic or therapeutic procedures.

EPHB2 / EPH Receptor B2 Antibody (aa17-200, clone 2D12C6) - 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 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 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:30213874).

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

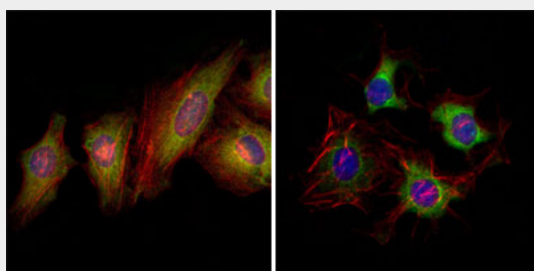
Volume

50 µl

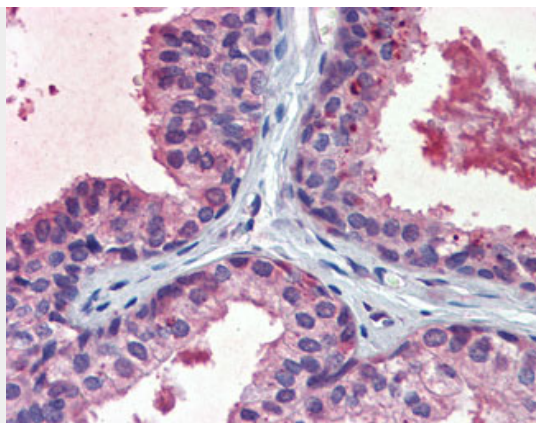
EPHB2 / EPH Receptor B2 Antibody (aa17-200, clone 2D12C6) - Protocols

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

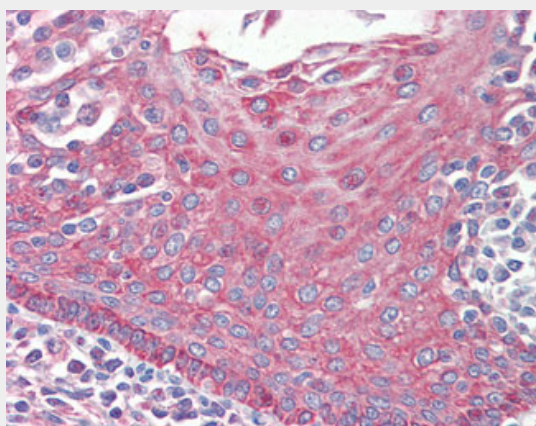
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

EPHB2 / EPH Receptor B2 Antibody (aa17-200, clone 2D12C6) - Images

Immunofluorescence of HeLa (left) and HepG2 (right) cells using EphB2 mouse monoclonal antibody...



Anti-EPHB2 antibody IHC of human prostate.



Anti-EPHB2 antibody IHC of human tonsil.

EPHB2 / EPH Receptor B2 Antibody (aa17-200, clone 2D12C6) - 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 (aa17-200, clone 2D12C6) - 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).