

**Anti-EPHB1/2 Antibody**  
**Catalog # AP54131****Specification**

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**Anti-EPHB1/2 Antibody - Product Information**

Application	WB, IF, IHC
Primary Accession	<a href="#">P54762</a>
Other Accession	<a href="#">P29323</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	109885

**Anti-EPHB1/2 Antibody - Additional Information****Gene ID** 2047**Other Names**

EPHB1; ELK; EPHT2; HEK6; NET; Ephrin type-B receptor 1; ELK; EPH tyrosine kinase 2; EPH-like kinase 6; EK6; hEK6; Neuronally-expressed EPH-related tyrosine kinase; NET; Tyrosine-protein kinase receptor EPH-2; EPHB2; DRT; EPHT3; EPTH3; ERK; HEK5; TYRO5; Ephrin type-B receptor 2; 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

**Target/Specificity**

Recognizes endogenous levels of EPHB1/2 protein.

**Dilution**

WB~~1/500 - 1/1000

IF~~1/50 - 1/200

IHC~~1:100~500

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**Anti-EPHB1/2 Antibody - Protein Information****Name** EPHB1**Synonyms** ELK, EPHT2, HEK6, NET**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. Cognate/functional ephrin ligands for this receptor include EFNB1, EFNB2 and EFNB3. During nervous system development, regulates retinal axon guidance redirecting ipsilaterally ventrotemporal retinal ganglion cells axons at the optic chiasm midline. This probably requires repulsive interaction with EFNB2. In the adult nervous system together with EFNB3, regulates chemotaxis, proliferation and polarity of the hippocampus neural progenitors. In addition to its role in axon guidance also plays an important redundant role with other ephrin-B receptors in development and maturation of dendritic spines and synapse formation. May also regulate angiogenesis. More generally, may play a role in targeted cell migration and adhesion. Upon activation by EFNB1 and probably other ephrin-B ligands activates the MAPK/ERK and the JNK signaling cascades to regulate cell migration and adhesion respectively. Involved in the maintenance of the pool of satellite cells (muscle stem cells) by promoting their self-renewal and reducing their activation and differentiation (By similarity).

#### Cellular Location

Cell membrane; Single-pass type I membrane protein Early endosome membrane. Cell projection, dendrite {ECO:0000250|UniProtKB:Q8CBF3}

#### Tissue Location

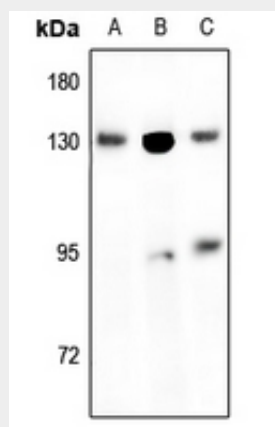
Preferentially expressed in brain.

### Anti-EPHB1/2 Antibody - Protocols

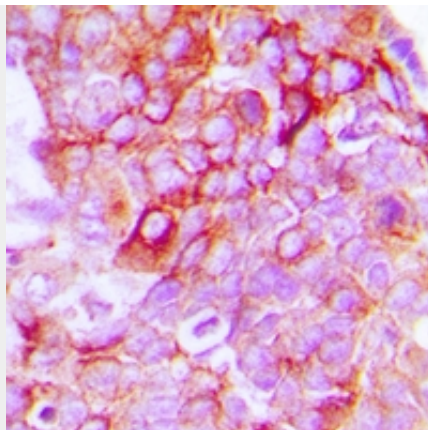
Provided below are standard protocols that you may find useful for product applications.

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

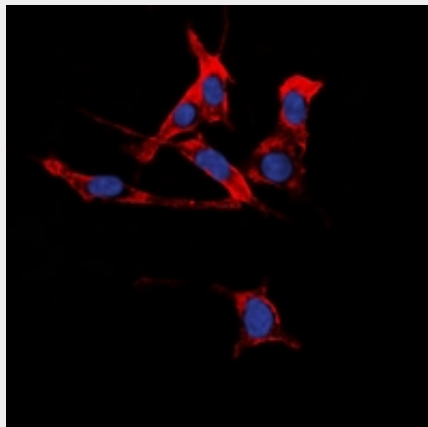
### Anti-EPHB1/2 Antibody - Images



Western blot analysis of EPHB1/2 expression in U87MG (A), rat brain (B), mouse heart (C) whole cell lysates.



Immunohistochemical analysis of EPHB1/2 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of EPHB1/2 staining in HuvEc cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### **Anti-EPHB1/2 Antibody - Background**

Rabbit polyclonal antibody to EPHB1/2