

## Product datasheet for **TA328806**

### **Ephb1 Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	FC, IF, WB
<b>Recommended Dilution:</b>	WB: 1:200-1:2000; FC: 1:50-1:600
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Host:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	Peptide (C)RSQTNTARIDGLR, corresponding to amino acid residues 485- 497 of mouse EphB1. Extracellular, N-terminus.
<b>Formulation:</b>	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
<b>Reconstitution Method:</b>	Add 50 ul double distilled water (DDW) to the lyophilized powder.
<b>Purification:</b>	Affinity purified on immobilized antigen.
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Gene Name:</b>	Eph receptor B1
<b>Database Link:</b>	<a href="#">NP_775623</a> <a href="#">Entrez Gene 2047 Human</a> <a href="#">Entrez Gene 24338 Rat</a> <a href="#">Entrez Gene 270190 Mouse</a> <a href="#">Q8CBF3</a>



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**Background:**

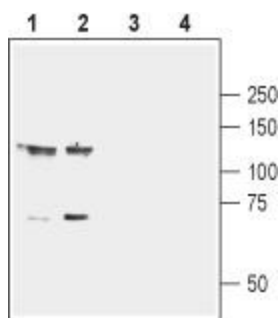
Eph receptors are the largest family of receptor tyrosine kinases (RTKs). EphA receptors (EphA1-10) bind ephrinA ligands which are GPI-linked proteins and EphB receptors (EphB1-6) bind ephrinB ligands which are membrane protein with one transmembrane domain. Within each subfamily, interactions between receptor and ligand are promiscuous. In addition, Eph receptors can also bind ephrins from the other class. Forward and reverse signaling through Eph receptors is a unique characteristic to this RTK since ephrins are physically linked to the plasma membrane. Structurally, Eph receptors contain an extracellular ligand-binding domain, a transmembrane domain and an intracellular C-terminal domain responsible for intracellular signaling. Forward Eph receptor signaling involves autophosphorylation of the receptor via a tyrosine kinase domain, as well as phosphorylation of other proteins. Known effectors of the forward signaling include Src kinase and Ras/Rho GTPases. Much less is known about the reverse signaling mediated by Eph receptors. Besides from acting independently, Eph receptors can also signal in concert with other receptors. For example, Eph receptors cooperate with FGF receptor, NMDA ligand-gated ion channel and chemokine G-protein coupled receptor. Biological activities attributed to the Eph receptor-ephrin signaling module include establishing neuronal connections, mediating neuronal plasticity and repair following neuronal injury. Eph receptors may also have a role in the immune system. Eph receptors are expressed in the developing nervous system, and in the adult brain. It is also detected in the pancreas, intestine, bone and lymphocytes. In cancer cells, Eph receptors and ephrins are overexpressed. They are also implicated in neurodegenerative disorders like Alzheimer's disease.

**Synonyms:**

ELK; EPHT2; FLJ37986; Hek6; NET

**Note:**

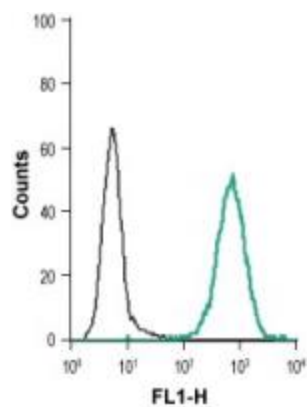
This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

**Product images:**

Western blot analysis of mouse (lanes 1 and 3) and rat (lanes 2 and 4) brain membranes: 1-2. Anti-EphB1 (extracellular) antibody, (1:800). 3-4. Anti-EphB1 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of EphB1 in rat PC12 cells. Immunocytochemical staining of live intact rat PC12 pheochromocytoma cells. A. Extracellular staining of cells with Anti-EphB1 (extracellular) antibody, (1:100), followed by goat anti-rabbit-AlexaFluor-594 (red). B. Live image of the cells. C. Merge of the two images.



Indirect flow cytometry analysis of live intact human THP-1 monocytic leukemia cell line: black line, Cells + goat anti-rabbit-AlexaFluor-488 secondary antibody. green line, Cells + Anti-EphB1 (extracellular) antibody, (1:15) + goat-anti-rabbit-Alexa-488.