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# **Rabbit Polyclonal Ephrin Receptor B4 Antibody**

Catalog Number: EPHBR4-401AP

Lot Number:

## **General Information**

Product	Eprhin Receptor B4 Antibody
Description	Affinity Purified Ephrin type-B receptor 4
	precursor Antibody
Accession #	NCBI: NP_004435
	Uniprot: P54760
Verified Applications	ELISA, IP, WB
Species Cross Reactivity	Human
Host	Rabbit
Immunogen	Synthetic peptide taken within amino acid region
	900-987 on human Ephrin B4 receptor protein.
Specificity	This antibody will bind to the cytoplasmic domain
	of ephrin receptor EphB4 protein.
Alternative Nomenclature	Hepatoma Transmembrane Kinase antibody, HTK
	antibody, MYK 1 antibody, TYRO 11 antibody

### **Physical Properties**

Quantity	100 µg
Volume	200 µl
Form	Affinity Purified Immunoglobulins
Immunoglobulin & Concentration	0.68 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20°C for long term storage.

#### **Recommended Dilutions**

DOT Blot	1:10,000	
ELISA	1:10,000	
Immunoprecipitation	1:200	
Western Blot	1:500	

#### **Related Products**

### Catalog #

BIOTIN-Conjugated	EPHBR4-BIOTIN
FITC-Conjugated	EPHBR4-FITC
Antigenic Blocking Peptide	P-EPHBR4
Western Blot Positive Control	PC-EPHBR4

### **Application Verification:**



WB of EPHBR4-401AP with SKNMC cells. 1:500 antibody dilution in DiluOBuffer<sup>™</sup> (FGI-1963). Apparent MW is 120 kDa.

Dilutions are for reference only. Applications not listed above are not necessarily precluded from working with this antibody. Investigators intending to use an application that has not been verified can request a complimentary sample.

#### **Overview:**

The membrane bound Ephrins are ligands for Ephrin receptor tyrosine kinases that regulate several physiological functions including long-term potentiation, cell positioning, CNS development and axonal path finding. Activation of Eph receptors regulate transduction pathways important in cell cycle control as well as cell death. There are at least four different kinds of Ephrin B receptors (Ephrin B1R-Ephrin B4R). Eph B receptor tyrosine kinases and Ephrin-B ligands regulate several types of cell-cell interactions during brain development, generally by modulating the cytoskeleton. Ephrin 4 ligands are also known as guidance molecule as they are mainly responsible for positioning and directing the cell migration along the villus-crypt axis in intestine. Ephrin 4 interacts with Ephrin B4 receptors in conjunction with Wnt protein signals and promotes remodeling of arterial environment (1). The Ephrin B receptors are the key coordinators of the intestinal stem cell niche (2). Ephrin B4 ligands are highly expressed in thin walled blood vessels and the Ephrins B4 receptors are expressed on vein grafts. Ephrin-B4 promotes vein plasticity and growth to the ligand-expressing substrates in vitro.

EPHBR4 selective antibodies were generated against a peptide taken from the human protein Ephrin B4 Receptor, corresponding to amino acid region 900-987. The EPHBR4-selective antibodies are affinity purified on an immobilized antigen based affinity matrix, the isolated antibodies were then stabilized in antibody stabilization buffer for long-term storage. Antigenic blocking peptide (P-EPHBR4) and western blot positive controls (PC-EPHBR4) are available. Antibodies can be conjugated to fluorophores or secondary enzymes upon request at nominal cost. For a complete listing of all FabGennix antibodies and lab services, please visit <a href="http://fabgennix.com">http://fabgennix.com</a>

#### References:

- Akihito Muto, Tai Yi, Kenneth D. Harrison, Alberto Dávalos, Tiffany T. Fancher, Kenneth R. Ziegler, Amanda Feigel, Yuka Kondo, Toshiya Nishibe, William C. Sessa, and Alan Dardik. Eph-B4 prevents venous adaptive remodeling in the adult arterial environment. J Exp Med. 2011 March 14; 208(3): 561–575.
- Holmberg J, Genander M, Halford MM, Anneren C, Sondell M, Chumley MJ, Silvany RE, Henkemeyer M, Frisen J. EphB receptors coordinate migration and proliferation in the intestinal stem cell niche. Cell. 2006 Jun 16;125(6):1151-63.

For users who may require large amounts of the products listed above, please inquire about bulk material discounts. This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.