

**EphB4 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7625a****Specification**

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**EphB4 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P54760](#)**EphB4 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 2050**Other Names**

Ephrin type-B receptor 4, Hepatoma transmembrane kinase, Tyrosine-protein kinase TYRO11, EPHB4, HTK, MYK1, TYRO11

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7625a](/product/products/AP7625a) was selected from the C-term region of human EphB4 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**EphB4 Antibody (C-term) Blocking Peptide - Protein Information****Name** EPHB4**Synonyms** HTK, MYK1, TYRO11**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. Together with its cognate ligand/functional ligand EFNB2 it is involved in the regulation of cell adhesion and migration, and plays a central role in heart morphogenesis, angiogenesis and blood vessel remodeling and permeability. EPHB4-mediated forward signaling controls cellular repulsion and segregation from EFNB2-expressing cells.

**Cellular Location**

Cell membrane; Single-pass type I membrane protein

**Tissue Location**

Abundantly expressed in placenta but also detected in kidney, liver, lung, pancreas, skeletal muscle and heart. Expressed in primitive and myeloid, but not lymphoid, hematopoietic cells. Also observed in cell lines derived from liver, breast, colon, lung, melanocyte and cervix.

**EphB4 Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**EphB4 Antibody (C-term) Blocking Peptide - Images****EphB4 Antibody (C-term) Blocking Peptide - Background**

Ephrin receptors and their ligands, the ephrins, mediate numerous developmental processes, particularly in the nervous system. Based on their structures and sequence relationships, ephrins are divided into the ephrin-A (EFNA) class, which are anchored to the membrane by a glycosylphosphatidylinositol linkage, and the ephrin-B (EFNB) class, which are transmembrane proteins. The Eph family of receptors are divided into 2 groups based on the similarity of their extracellular domain sequences and their affinities for binding ephrin-A and ephrin-B ligands. Ephrin receptors make up the largest subgroup of the receptor tyrosine kinase (RTK) family. EphB4 binds to ephrin-B2 and plays an essential role in vascular development.

**EphB4 Antibody (C-term) Blocking Peptide - References**

Steinle, J.J., et al., J. Biol. Chem. 277(46):43830-43835 (2002). Suenobu, S., et al., Biochem. Biophys. Res. Commun. 293(3):1124-1131 (2002). Wang, Z., et al., Blood 99(8):2740-2747 (2002). Wilson, M.D., et al., Nucleic Acids Res. 29(6):1352-1365 (2001). Wilkinson, D.G., Nat Rev Neurosci 2(3):155-164 (2001).