

EphB3 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7624a**Specification**

EphB3 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P54753](#)**EphB3 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 2049**Other Names**

Ephrin type-B receptor 3, EPH-like tyrosine kinase 2, EPH-like kinase 2, Embryonic kinase 2, EK2, hEK2, Tyrosine-protein kinase TYRO6, EPHB3, ETK2, HEK2, TYRO6

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7624a](/product/products/AP7624a) was selected from the N-term region of human EphB3. 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.

EphB3 Antibody (N-term) Blocking Peptide - Protein Information**Name** EPHB3**Synonyms** ETK2, HEK2, TYRO6**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. Generally has an overlapping and redundant function with EPHB2. Like EPHB2, functions in axon guidance during development regulating for instance the neurons forming the corpus callosum and the anterior commissure, 2 major interhemispheric connections between the temporal lobes of the cerebral cortex. 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 the formation

of excitatory synapses. Controls other aspects of development through regulation of cell migration and positioning. This includes angiogenesis, palate development and thymic epithelium development for instance. Forward and reverse signaling through the EFNB2/EPHB3 complex also regulate migration and adhesion of cells that tubularize the urethra and septate the cloaca. Finally, plays an important role in intestinal epithelium differentiation segregating progenitor from differentiated cells in the crypt.

Cellular Location

Cell membrane; Single-pass type I membrane protein. Cell projection, dendrite

Tissue Location

Ubiquitous.

EphB3 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

EphB3 Antibody (N-term) Blocking Peptide - Images**EphB3 Antibody (N-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. EphB3, a member of the Tyr family of protein kinases, is a receptor for members of the ephrin-B family; it binds to both ephrin-B1 and -B2. Expression of this Type I membrane protein is ubiquitous. The protein contains putative domains for 2 fibronectin type III and 1 sterile alpha motif (SAM).

EphB3 Antibody (N-term) Blocking Peptide - References

Bohme, B., et al., Oncogene 8(10):2857-2862 (1993).