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EphA7 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP7612b

Specification

EphA7 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q15375

EphA7 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 2045

Other Names
Ephrin type-A receptor 7, EPH homology kinase 3, EHK-3, EPH-like kinase 11, EK11, hEK11, EPHA7, EHK3, HEK11

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7612b was selected from the C-term region of human EphA7 . 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.

EphA7 Antibody (C-term) Blocking Peptide - Protein Information

Name EPHA7

Synonyms EHK3, HEK11

Function
Receptor tyrosine kinase which binds promiscuously GPI- anchored ephrin-A 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. Among GPI-anchored ephrin-A ligands, EFNA5 is a cognate/functional ligand for EPHA7 and their interaction regulates brain development modulating cell-cell adhesion and repulsion. Has a repellent activity on axons and is for instance involved in the guidance of corticothalamic axons and in the proper topographic mapping of retinal axons to the colliculus. May also regulate brain development through a caspase(CASP3)-dependent proapoptotic activity. Forward signaling may result in activation of components of the ERK signaling pathway including MAP2K1, MAP2K2,

MAPK1 and MAPK3 which are phosphorylated upon activation of EPHA7.

Cellular Location
Cell membrane; Single-pass type I membrane protein

Tissue Location
Widely expressed.

EphA7 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

EphA7 Antibody (C-term) Blocking Peptide - Images

EphA7 Antibody (C-term) Blocking Peptide - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The tyrosine kinase (TK) group is mainly involved in the regulation of cell-cell interactions such as differentiation, adhesion, motility and death. There are currently about 90 TK genes sequenced, 58 are of receptor protein TK (e.g. EGFR, EPH, FGFR, PDGFR, TRK, and VEGFR families), and 32 of cytosolic TK (e.g. ABL, FAK, JAK, and SRC families).

EphA7 Antibody (C-term) Blocking Peptide - References

Wilkinson, D.G., Nat Rev Neurosci 2(3):155-164 (2001). Xu, Q., et al., Philos. Trans. R. Soc. Lond., B, Biol. Sci. 355(1399):993-1002 (2000). Holder, N., et al., Development 126(10):2033-2044 (1999). Zhou, R., Pharmacol. Ther. 77(3):151-181 (1998). Fox, G.M., et al., Oncogene 10(5):897-905 (1995).

EphA7 Antibody (C-term) Blocking Peptide - Citations

- Eph/ephrin profiling in human breast cancer reveals significant associations between expression level and clinical outcome.