ARG40842
anti-EphB1 / NET antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes EphB1 / NET
Tested Reactivity	Hu
Predict Reactivity	Hm
Tested Application	FACS, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	EphB1 / NET
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 56-88 of Human EphB1 / NET. (RTYQVCNVFEPNQNNWLLTTFINRRGAHRIYTE)
Conjugation	Un-conjugated
Alternate Names	ELK; hEK6; Hek6; Tyrosine-protein kinase receptor EPH-2; EPH tyrosine kinase 2; Neuronally-expressed EPH-related tyrosine kinase; Ephrin type-B receptor 1; EPH-like kinase 6; EPHT2; EK6; NET; EC 2.7.10.1

Application Instructions

Application table

Application	Dilution
FACS	1 - 3 µg/10^6 cells
IHC-P	1:200 - 1:1000
WB	1:500 - 1:2000

Application Note: IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

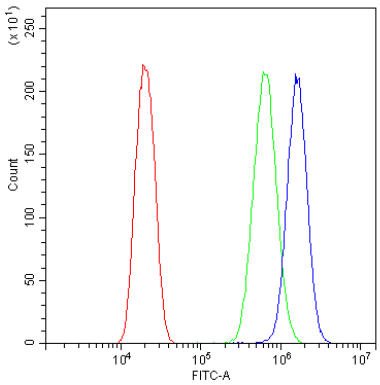
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

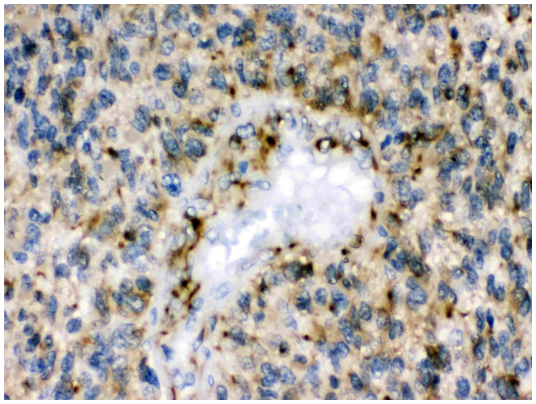
Gene Symbol	EPHB1
Gene Full Name	EPH receptor B1
Background	Ephrin receptors and their ligands, the ephrins, mediate numerous developmental processes, particularly in the nervous system. Based on their structures and sequence relationships, ephrins are divided into the ephrin-A (EFNA) class, which are 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. The protein encoded by this gene is a receptor for ephrin-B family members. [provided by RefSeq, Jul 2008]
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. Cognate/functional ephrin ligands for this receptor include EFNB1, EFNB2 and EFNB3. During nervous system development, regulates retinal axon guidance redirecting ipsilaterally ventrotemporal retinal ganglion cells axons at the optic chiasm midline. This probably requires repulsive interaction with EFNB2. In the adult nervous system together with EFNB3, regulates chemotaxis, proliferation and polarity of the hippocampus neural progenitors. In addition to its role in axon guidance plays also an important redundant role with other ephrin-B receptors in development and maturation of dendritic spines and synapse formation. May also regulate angiogenesis. More generally, may play a role in targeted cell migration and adhesion. Upon activation by EFNB1 and probably other ephrin-B ligands activates the MAPK/ERK and the JNK signaling cascades to regulate cell migration and adhesion respectively. [UniProt]
Calculated Mw	110 kDa
PTM	Phosphorylated. Autophosphorylation is stimulated by the ligand EFNB1. Required for interaction with SH2 domain-containing interactors, for activation of the MAPK/ERK and JUN signaling cascades and for ubiquitination by CBL. Ubiquitinated; (EFNB1)ligand-induced poly- and/or multi-ubiquitination by CBL is regulated by SRC and leads to lysosomal degradation. [UniProt]
Cellular Localization	Cell membrane; Single-pass type I membrane protein. Early endosome membrane. Cell projection, dendrite. [UniProt]

Images



ARG40842 anti-EphB1 / NET antibody FACS image

Flow Cytometry: U2OS cells were blocked with 10% normal goat serum and stained with ARG40842 anti-EphB1 / NET antibody (blue) at 1 µg/10^6 cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was Rabbit IgG (1 µg/10^6 cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



ARG40842 anti-EphB1 / NET antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human Glioma Tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG40842 anti-EphB1 / NET antibody at 1 µg/ml, overnight at 4°C.

ARG40842 anti-EphB1 / NET antibody WB image

Western blot: 50 µg of sample under reducing conditions. 293T whole cell lysate stained wtih ARG40842 anti-EphB1 / NET antibody at 0.5 µg/ml, overnight at 4°C.