Datasheet for ABIN2191850

anti-EPH Receptor B4 antibody

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Overview

Quantity:	100 µg
Target:	EPH Receptor B4 (EPHB4)
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This EPH Receptor B4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunoassay (IA)

Product Details

Clone:	VEB4-7E4
Sterility:	0.2 µm filtered

Target Details

Target:	EPH Receptor B4 (EPHB4)
Alternative Name:	Ephrin Type-B Receptor 4 (EPHB4 Products)
Background:	The monoclonal antibody VEB4-7E4 recognizes mouse Ephrin type-B receptor 4 (EphB4), an ~110 kD protein. Erythropoietin-producing human hepatocellular carcinoma (Eph) receptors and ephrins are membrane proteins. They are classified into 2 broad subclasses, namely A and B, according to structural homologies and binding specificities. Eph receptors are tyrosine kinases, which autophosphorylate upon binding to their cognate ephrin ligands. Eph receptors

Target Details

	and ephrins are frequently expressed in reciprocal patterns that correlate with cellular boundaries during embryonic development. The interaction between EphB4 and its ligand, Ephrin-B2, plays an important role in cell-cell, cell- extracellular matrix interactions as well as in cell migration, adhesion and proliferation. During the early stages of vascular development, EphB4 is specifically expressed in venous endothelium, whereas Ephrin-B2 is expressed in arterial endothelium. In mouse embryo's, EphB4 and Ephrin-B2 are essential for embryonic heart development and angiogenesis. In adult microcirculation, EphB4 is not a ubiquitous marker of arterial/venous polarity, but is expressed along both venules and arterioles. Furthermore, EphB4 is upregulated by endothelial cells along blind-ended capillary sprouts versus connecting capillaries. As such, EphB4 is thought to play a role in the patterning of new vessels during angiogenesis. EphB4 is also expressed in a variety of tumor cells, like gastrointestinal, prostate, bladder, breast, liver, lung and ovarian cancers, as well as leukemia, mesothelioma, malignant breast tumors and melanoma. Reduction of EphB4 activity accelerated tumorigenesis in colon and rectum. In head and neck squamous cell carcinoma and endometrial carcinoma, overexpression of EphB4 is inversely related to a poor prognosis. However, in mesothelioma, up-regulation of EphB4 resulted in growth of the tumor. Besides the essential expression of EphB4, coexpression of other EphB4 family members or EphB-ligands may affect tumor cell viability and proliferation as well. The monoclonal antibody VEB4-7E4 marks venous endothelial cells, but not arterial endothelial cells in B16 melanoma cells. Aliases Tyrosine-protein kinase receptor HTK
Pathways:	RTK Signaling

Application Details

Application Notes:	For immunohistology, flow cytometry, immunofluorescence and Western blotting dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.
Restrictions:	For Research Use only

Handling

Buffer:	PBS, containing 0.1 % bovine serum albumin and 0.02 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage:	4 °C
Storage Comment:	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for one year.
Expiry Date:	12 months

Publications

Product cited in:	Huang, Yamada, Kidoya, Naito, Nagahama, Kong, Katoh, Li, Ueno, Takakura: "EphB4 overexpression in B16 melanoma cells affects arterial-venous patterning in tumor angiogenesis." in: **Cancer research**, Vol. 67, Issue 20, pp. 9800-8, (2007) (PubMed).