Mouse Anti-Human EPH Receptor B4 Monoclonal Antibody

Cat. No. CAB11531MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse Monoclonal Antibody to Human EPH Receptor B4
Species	Human
Source	Mouse
Antigen Description	EphB4, also known as Htk, Myk-1, is a member of the Eph family of receptor tyrosine kinases (RTK). The Ephs are divided into two classes based on their extracellular structure and ligand specificity, and the transmembrane receptor binding preferentially to ephrin-B ligands is referred to as EphB. Sharing common structure organization, all Eph receptors contain an N-terminal Ig-like domain, a cysteine-rich region and two fibronectin type III domains within the ECD, as well as the typical cytoplasmic tyrosine kinase domain. EphB4 and its ligand ephrin-B2 are specifically expressed on venous and arterial endothelial cells, respectively, and play an essential role in vascular development via bidirectional signals. The forward EphB4 signaling inhibits cell adhesion, chemotaxis, angiogenesis, and tumor growth. In contrast, the reverse Ephrin-B2 signaling exerts the opposite effect. It has been reported that aberrant expression of EphB4 is associated with prostate cancer and highly malignant breast cancers, and accordingly, EphB4 has potential applications as a therapeutic candidate.
Specificity	Human EphB4 / HTK. No cross-reactivity with human cell lysate (293 cell line) in WB and ELISA.

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Immunogen	Recombinant human EphB4 protein
Isotype	Mouse IgG1
Clone	3F9G13I7
Applications	Immunochemistry; WB; ELISA
Dilution	Immunochemistry: This antibody can be used at 5 - 20 µg/mL with the appropriate secondary reagents to detect human EphB4 by immunohistochemistry (Formalin fixed paraffin-embedded sections) Human EphB4 was detected in Formalin fixed paraffin-embedded sections of human placenta using anti-EphB4 mouse monoclonal antibody at 15 µg/mL overnight at 4 °C. High temperature antigen retrieval using 0.01M citrate retrieval solution (pH 6.0) was recommended before primary antibody incubation. Tissue was stained using the Polink-1 HRP Mouse for DAB detection system and counterstained with hematoxylin (blue). Specific labeling was localized to trophoblastic cell.Western blot: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human EphB4 in WB.ELISA: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human EphB4 in ELISA.
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant human EphB4 / HTK extracellular domain. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when

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	stored at -20 to -70°C. Preservative-Free.Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	EPHB4 EPH receptor B4 [Homo sapiens]
Official Symbol	EPHB4
Synonyms	EPHB4; EPH receptor B4; EphB4 , HTK; ephrin type-B receptor 4; Tyro11; ephrin receptor EphB4; soluble EPHB4 variant 1; soluble EPHB4 variant 2; soluble EPHB4 variant 3; hepatoma transmembrane kinase; tyrosine-protein kinase TYRO11; tyrosine-protein kinase receptor HTK; HTK; MYK1; TYRO11;
Gene ID	2050
mRNA Refseq	NM_004444
Protein Refseq	NP_004435
MIM	600011
UniProt ID	P54760
Chromosome Location	7q22
Pathway	Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem; EPHB forward signaling, organism-specific biosystem; Ephrin B reverse signaling, organism-specific biosystem; EphrinB-EPHB pathway, organism-specific biosystem;

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Function	ATP binding; ephrin receptor activity; ephrin receptor activity; nucleotide binding; protein binding; protein tyrosine kinase activity; receptor activity; transmembrane receptor protein tyrosine kinase activity;

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