

MER Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1126a

Product Information

Application	WB, E
Primary Accession	Q12866
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7E5G1
Isotype	IgG1
Calculated MW	110249
Description	MER (c-mer proto-oncogene tyrosine kinase) is a member of the MER/AXL/TYRO3 receptor kinase family and encodes a transmembrane protein with two fibronectin type-III domains, two Ig-like C2-type (immunoglobulin-like) domains, and one tyrosine kinase domain. MER has been identified as a tyrosine kinase potentially involved in the development of glioblastomas. It is expressed at highest levels in ovary, prostate, lung and kidney. Gas6, a growth arrest specific gene, and the related anticoagulation factor Protein S have been identified as ligands for the UFO family of receptors. Mutations in this gene have been associated with disruption of the retinal pigment epithelium (RPE) phagocytosis pathway and onset of autosomal recessive retinitis pigmentosa (RP).
Immunogen	Purified recombinant fragment of MER expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	10461
Other Names	Tyrosine-protein kinase Mer, 2.7.10.1, Proto-oncogene c-Mer, Receptor tyrosine kinase MerTK, MERTK, MER
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MER Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MERTK
Synonyms	MER
Function	Receptor tyrosine kinase that transduces signals from the extracellular matrix into the cytoplasm by binding to several ligands including LGALS3, TUB, TULP1 or GAS6. Regulates many physiological processes including cell survival, migration, differentiation, and phagocytosis of apoptotic cells (efferocytosis). Ligand binding at the cell surface induces autophosphorylation of MERTK on its intracellular domain that provides docking sites for downstream signaling molecules. Following activation by ligand, interacts with GRB2 or PLCG2 and induces phosphorylation of MAPK1, MAPK2, FAK/PTK2 or RAC1. MERTK signaling plays a role in various processes such as macrophage clearance of apoptotic cells, platelet aggregation, cytoskeleton reorganization and engulfment (PubMed: 32640697). Functions in the retinal pigment epithelium (RPE) as a regulator of rod outer segments fragments phagocytosis. Also plays an important role in inhibition of Toll-like receptors (TLRs)-mediated innate immune response by activating STAT1, which selectively induces production of suppressors of cytokine signaling SOCS1 and SOCS3.
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Not expressed in normal B- and T-lymphocytes but is expressed in numerous neoplastic B- and T-cell lines. Highly expressed in testis, ovary, prostate, lung, and kidney, with lower expression in spleen, small intestine, colon, and liver

References

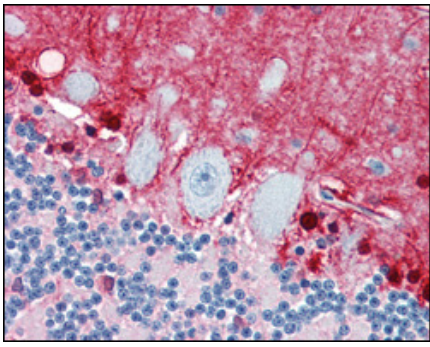
1. McGough N. Cummings JH. Proc Nutr Soc.2005, Nov,64(4):434-50. Review. 2. Allouache D. Gawande SR. Tubiana-Hulin M. et al. BMC Cancer. 2005, Nov 29,5:151. 3. Seguneau C. Soudant P. Moal J. et al. Lipids.2005, Sep,40(9): 931-9.

Images



Figure 1: Western blot analysis using MER mouse mAb against fragment MER recombinant protein.

Figure 2: Immunohistochemical analysis of paraffin-embedded human brain, cerebellum using S100B mouse mAb with DAB staining.



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