10320 Camino Santa Fe, Suite G
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MER Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1126a

Specification

MER Antibody - Product Information

Application	**WB, E**
Primary Accession	Q12866
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**

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.

MER Antibody - 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.

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MER Antibody - 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

MER Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MER Antibody - Images

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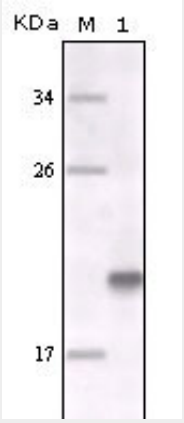

Figure 1: Western blot analysis using MER mouse mAb against fragment MER recombinant protein.

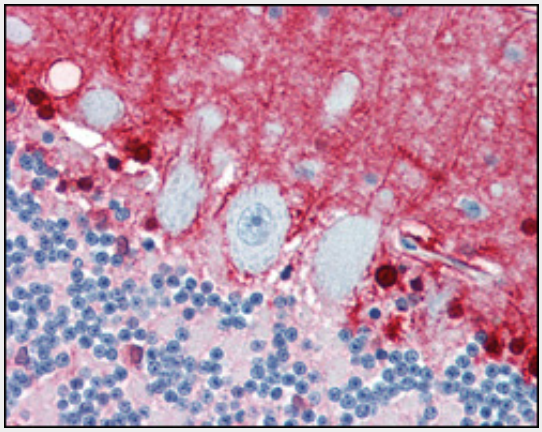

Figure 2: Immunohistochemical analysis of paraffin-embedded human brain, cerebellun using S100B mouse mAb with DAB staining.

MER Antibody - 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. Seguineau C. Soudant P. Moal J. et al. Lipids.2005, Sep,40(9): 931-9.