MERTK Antibody (N-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	MERTK, Blocking Peptide
Full Product Name	MERTK Antibody (N-term) Blocking peptide
Product Gene Name	MERTK blocking peptide
Product Synonym Gene Name	MER
Product Synonym Names	Tyrosine-protein kinase Mer; Proto-oncogene c-Mer; Receptor tyrosine kinase MerTK; MERTK; MER
Form/Format	The synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml deionized water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the N-term region of human MERK. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Molecular Weight	110,249 Da
OMIM	604705
Cellular Location	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
Related Product Information for MERTK blocking peptide	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. Functions in the retinal pigment epithelium (RPE) as a regulator of rod outer segments fragments phagocytosis. Plays also 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.
Other Notes	Small volumes of MERTK blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MERTK purchase	MBS9227135 is a blocking peptide targeting MERTK. Also known as MERTK Antibody (N-term) Blocking peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MERTK. It may not necessarily be applicable to this product.

NCBI GI #	160332297
NCBI GeneID	10461
NCBI Accession #	Q12866.2
UniProt Primary Accession #	Q12866
UniProt Secondary Accession #	Q9HBB4

UniProt Related Accession #	Q12866
NCBI Official Full Name	Tyrosine-protein kinase Mer
NCBI Official Synonym Full Names	MER proto-oncogene, tyrosine kinase
NCBI Official Symbol	MERTK
NCBI Official Synonym Symbols	MER; RP38; c-Eyk; c-mer; Tyro12
UniProt Protein Name	Tyrosine-protein kinase Mer
UniProt Synonym Protein Names	Proto-oncogene c-Mer; Receptor tyrosine kinase MerTK
Protein Family	Tyrosine-protein kinase
UniProt Gene Name	MERTK
UniProt Synonym Gene Names	MER
UniProt Entry Name	MERTK_HUMAN
NCBI Protein Information	tyrosine-protein kinase Mer
NCBI Summary for MERTK	This gene 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. 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). [provided by RefSeq, Jul 2008]
UniProt Comments for MERTK	Mer: a proto-oncogene receptor tyrosine-protein kinase of the Axl family. Binds several ligands including LGALS3, Tubby, TULP1 or GAS6. Regulates many physiological processes including cell survival, migration, differentiation, and phagocytosis of apoptotic cells (efferocytosis). Functions in the retinal pigment epithelium (RPE) as a regulator of rod outer segments fragments phagocytosis. Plays also 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 Protein type: Kinase, protein; Membrane protein, integral; Protein kinase, tyrosine (receptor); Oncoprotein; Protein kinase, TK; EC 2.7.10.1; TK group; Axl family Chromosomal Location of Human Ortholog: 2q14.1 Cellular Component: cytoplasm; extracellular space; integral to plasma membrane; plasma membrane Molecular Function: protein binding Biological Process: cell surface receptor linked signal transduction; cell-cell signaling; leukocyte migration; phagocytosis; positive regulation of phagocytosis; protein amino acid phosphorylation Disease: Retinitis Pigmentosa 38
Research Articles on MERTK	**1.** Data indicate that AAV2-VMD2-c-mer proto-oncogene protein (hMERTK) provided up to 6.5 months photoreceptor rescue in the RCS rat, and also had a major protective effect in Mertk-null mice.
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