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MERTK Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP7662a

Specification

MERTK Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q12866

MERTK Antibody (N-term) Blocking peptide - Additional Information

Gene ID 10461

Other Names
Tyrosine-protein kinase Mer, Proto-oncogene c-Mer, Receptor tyrosine kinase MerTK, MERTK, MER

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7662a 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.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MERTK Antibody (N-term) Blocking peptide - 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

MERTK Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

MERTK Antibody (N-term) Blocking peptide - Images

MERTK Antibody (N-term) Blocking peptide - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains.

MERTK Antibody (N-term) Blocking peptide - References

Thompson, D.A., et al., Am. J. Hum. Genet. 70(1):224-229 (2002).Graham, D.K., et al., Cell Growth Differ. 5(6):647-657 (1994).Weier, H.U., et al., Cytogenet. Cell Genet. 84 (1-2), 91-92 (1999).