Recombinant Human MERTK/Mer Protein

Catalog Number:PKSH031699

Note: Centrifuge before opening to ensure complete recovery of vial contents.

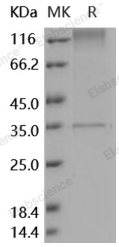
Description

Synonyms	Tyrosine-protein kinase Mer;Proto-oncogene c-Mer;Receptor tyrosine kinase MerTK;MERTK;MER;Mer
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Ala 499
Accession	NP_006334.2
Calculated Molecular Weight	54.0 kDa
Observed molecular weight	110-120 kDa
Tag	None

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 100mM NaCl, 50mM Tris, pH 7.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Proto-oncogene tyrosine-protein kinase MER (MERTK) 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. MERTK is localized in membrane and is no expressed in normal B- and T-lymphocytes but is expressed in numerous neoplastic B- and T-cell lines. This protein is highly expressed in testis; ovary; prostate; lung; and kidney; with lower expression in spleen; small intestine; colon; and liver. MERTK 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. MERTK signaling plays a role in various processes such as macrophage clearance of apoptotic cells; platelet aggregation; cytoskeleton reorganization and engulfment. MERTK 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. Defects in MERTK are the cause of retinitis pigmentosa type 38.

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