Recombinant Mouse MERTK/MER Protein (His & GST Tag)

Catalog No. PKSM040301

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

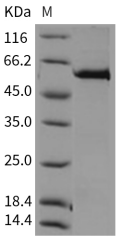
Description

Synonyms	Eyk;Mer;nmf12;Nyk
Species	Mouse
Expression Host	Baculovirus-Insect Cells
Sequence	Glu573-Tyr867
Accession	Q60805
Calculated Molecular Weight	61.7 kDa
Observed molecular weight	58 kDa
Tag	N-His-GST
Bioactivity	The specific activity was determined to be 30 nmol/min/mg using Poly(Glu, Tyr) 4:1 as substrate.

Properties

Purity	> 96 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile solution of 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol
Reconstitution	Not Applicable

Data



> 96 % 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

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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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