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

Catalog Number: PKSH030417

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

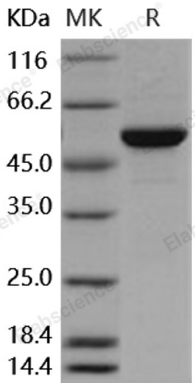
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human MERTK/MER protein Glu 578-Tyr 872, with an N-terminal His & GST
Calculated MW	62.0 kDa
Observed MW	50 kDa
Accession	Q12866
Bio-activity	Not validated for activity

Properties

Purity	> 92 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
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 50mM Tris, 100mM NaCl, pH 7.4, 20% glycerol, 0.3mM DTT

Data



> 92 % 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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