Recombinant Human MERTK/MER Protein (His Tag)

Catalog Number: PKSH033481

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

Description	
Species	Human
Source	HEK293 Cells-derived Human MERTK/MER protein Met1-Ala323, with an C-terminal
	His
Calculated MW	36.0 kDa
Observed MW	60-120 kDa
Accession	Q1RMG3
Bio-activity	Not validated for activity
Properties	
Purity	> 95 % 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
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}C$ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM Tris-HCl, 150mM NaCl, pH 8.0.
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 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	



> 95 % as determined by reducing SDS-PAGE.

Background

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Tyrosine-protein kinase Mer (MERTK) is a single-pass type I membrane protein which belongs to the MER/AXL/TYRO3 receptor kinase family. MERTK include two fibronectin type-III domains; two Ig-like C2-type domains; and one tyrosine kinase domain. It can't be expressed in normal B- and T-lymphocytes; but it is usually expressed in numerous neoplastic B- and T-cell lines. MERTK could regulate many physiological processes; such as cell survival; migration; differentiation. It was demonstrated that the MERTK plays critical role in the engulfment and efficient clearance of apoptotic cells; platelet aggregation; and cytoskeleton reorganization. Not only these; it 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. In addition; MERTK could regulate rod outer segments fragments phagocytosis in the retinal pigment epithelium (RPE); deficiency in MERTK are the cause of retinitis pigmentosa.