Recombinant Protein Technical Manual

Recombinant Human MERTK/MER Protein (His Tag)

RPES3920

Product Data:

Product SKU: RPES3920

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: Q12866

Protein Information:

Molecular Mass: 36 kDa

AP Molecular Mass: 6020 kDa

Tag: C-His

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20℃, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7℃ 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 a 0.2 µm filtered solution of 20mM Tris,150mM NaCl,pH8.0.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Tyrosine-protein kinase Mer; Proto-oncogene c-Mer; Receptor tyrosine kinase MerTK; MERTK; MER; Mer

Immunogen Information:

Sequence: Met177-Ala499

Background:

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.