

Synonym

MERTK,Mer

Source

Human MERTK, His Tag(MEK-H52H6) is expressed from human 293 cells (HEK293). It contains AA Ala 21 - Ile 505 (Accession # [Q12866-1](#)).

Predicted N-terminus: Ala 21

Molecular Characterization

MERTK(Ala 21 - Ile 505)
Q12866-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 54.5 kDa. The protein migrates as 70-115 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

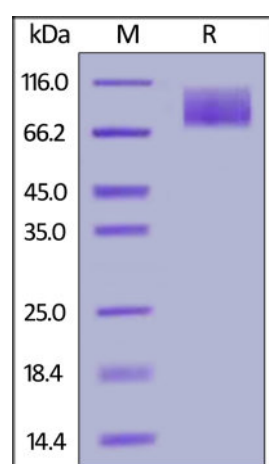
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

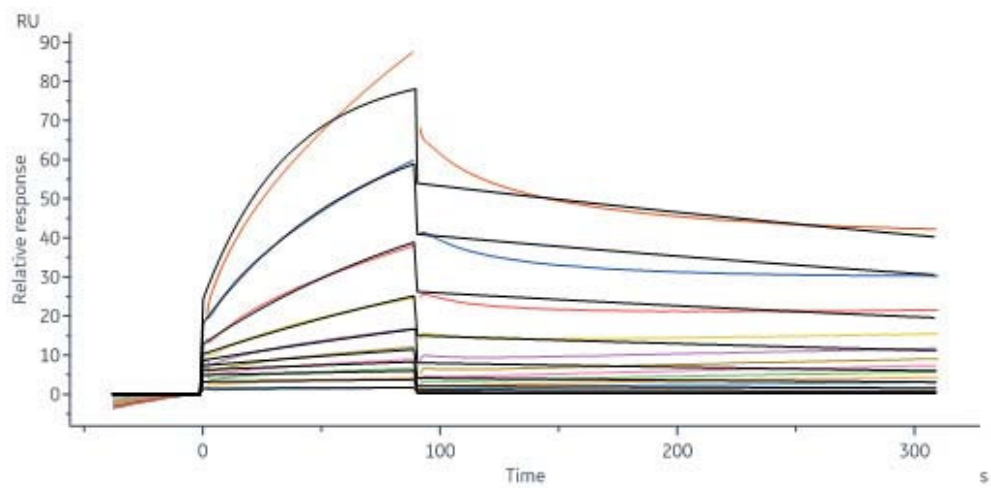
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human MERTK, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-SPR



Human MERTK, His Tag (Cat. No. MEK-H52H6) immobilized on CM5 Chip can bind Human GAS6, His Tag (Cat. No. GA6-H5249) with an affinity constant of 50.9 nM as determined in SPR assay (Biacore 8K) (Routinely tested).

Background

Tyrosine-protein kinase Mer(MERTK) is a member of the TYRO3/AXL/MER (TAM) 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. Following activation by ligand, interacts with GRB2 or PLCG2 and induces phosphorylation of MAPK1, MAPK2, FAK/PTK2 or RAC1. MERTK signaling plays a role in various processes such as macrophage clearance of apoptotic cells, platelet aggregation, cytoskeleton reorganization and engulfment. Functions in the retinal pigment epithelium (RPE) as a regulator of rod outer segments fragments phagocytosis. 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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.