ARG81749
Human MERTK ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG81749-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG81749-002	Standard	2 X 10 ng/vial	4°C
ARG81749-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG81749-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG81749-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG81749-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG81749-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG81749-008	25X Wash buffer	20 ml	4°C
ARG81749-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG81749-010	STOP solution	10 ml (Ready to use)	4°C
ARG81749-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG81749 Human MERTK ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human MERTK in serum and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	MERTK
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	78 pg/ml
Sample Type	Serum and cell culture supernatants.
Standard Range	156 - 10000 pg/ml
Sample Volume	100 µl

Precision	Intra-Assay CV: 5.0%; Inter-Assay CV: 5.7%
Alternate Names	c-mer; Receptor tyrosine kinase MerTK; c-Eyk; Tyro12; MER; RP38; EC 2.7.10.1; Proto-oncogene c-Mer; Tyrosine-protein kinase Mer

Application Instructions

Assay Time	~ 5 hours

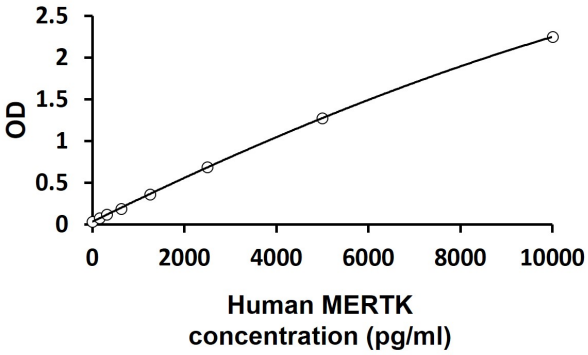
Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	MERTK
Gene Full Name	MER proto-oncogene, tyrosine kinase
Background	This gene 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. Mutations in this gene have been associated with disruption of the retinal pigment epithelium (RPE) phagocytosis pathway and onset of autosomal recessive retinitis pigmentosa (RP). [provided by RefSeq, Jul 2008]
Function	Receptor tyrosine kinase that transduces signals from the extracellular matrix into the cytoplasm by binding to several ligands including LGALS3, TUB, TULP1 or GAS6. 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. 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. [UniProt]
Highlight	Related products: MERTK antibodies; MERTK ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	Autophosphorylated on Tyr-749, Tyr-753 and Tyr-754 in the activation loop allowing full activity. Autophosphorylated on Tyr-872 leading to recruitment of downstream partners of the signaling cascade such as PLCG2 (By similarity). [UniProt]

Images



ARG81749 Human MERTK ELISA Kit standard curve image

ARG81749 Human MERTK ELISA Kit results of a typical standard run with optical density reading at 450 nm.