Mer Protein, Cynomolgus (HEK293, Fc)

Cat. No.:	HY-P78581
Synonyms:	MERTK; Mer
Species:	Cynomolgus
Source:	HEK293
Accession:	XP_005575320.1 (A23-I507)
Gene ID:	/
Molecular Weight:	approximately 150 kDa

PROPERTIES

AA Sequence	A I T E A R E E A K P Y P L F P G P L P G S L Q T D H T S L L S L P H T S G Y Q P A L M F S P T Q P G R P Y T G N V A I P R V T S A G S K L L P P L A F K H T V G H I I L S E H K D V K F N C S I S V P N I Y Q D T T I S W W K D G K E L L G A H H A I T Q F Y P D D E V T A I I A S F S I T S V Q R S D N G S Y I C K M K I N N E E I V S D P I Y I E V Q G L P H F T K Q P E S M N V T R N T A F N L T C Q A V G P P E P V N I F W V Q N S S R V N E Q P E K S P S V L T V P G L T E M A V F S C E A H N D K G L T V S K G V Q I N I K A I P S P P T E V S I H N S T A H S I L I S W V P G F D G Y S P F R N C S V Q V K E V D P L S N G S V M I F N T S A S P H M Y Q I K Q L Q A L A N Y S I G V S C M N E I G W S A V S P W I L A S T T E G A P S V A P L N V T V F L N E S R D N V D I R W M K P L T K R Q A G E L V G Y R I S H V W Q S A G I S K E L L E E V G Q N N S R A Q I S V Q V H N A T C T V R I A A V T K G G V G P F S D P V K I F I P A H G W V D H A P S S T P A P G N A D P V L I I
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human Gas6 Protein, His tag at 5 μg/mL (100 μL/well) can bind Biotinylated Cynomolgus MERTK. The ED_{50} for this effect is 55.09 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized a 0.22 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The Mer protein, a receptor tyrosine kinase, transduces signals from the extracellular matrix by binding to various ligands, including LGALS3, TUB, TULP1, or GAS6. It is involved in regulating diverse physiological processes, including cell survival, migration, differentiation, and the phagocytosis of apoptotic cells (efferocytosis). Ligand binding at the cell surface induces autophosphorylation of MERTK on its intracellular domain, creating docking sites for downstream signaling molecules. Upon activation by ligand, Mer interacts with GRB2 or PLCG2 and induces the phosphorylation of MAPK1, MAPK2, FAK/PTK2, or RAC1. MERTK signaling is implicated in macrophage clearance of apoptotic cells, platelet aggregation, cytoskeleton reorganization, and engulfment. In the retinal pigment epithelium (RPE), it serves as a regulator of rod outer segment fragments' phagocytosis. Moreover, Mer plays a crucial role in inhibiting Toll-like receptors (TLRs)-mediated innate immune responses by activating STAT1, which selectively induces the production of suppressors of cytokine signaling SOCS1 and SOCS3.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA