MERTK Protein, Mouse (HEK293, His)

Cat. No.:	HY-P700446
Synonyms:	MERTK; c-mer proto-oncogene tyrosine kinase; tyrosine-protein kinase Mer; mer; RP38; STK kinase; proto-oncogene c-Mer; MER receptor tyrosine kinase; receptor tyrosine kinase MerTK; MER; c-mer; MGC133349;
Species:	Mouse
Source:	HEK293
Accession:	Q60805 (G19-M497)
Gene ID:	17289
Molecular Weight:	55.0 kDa

PROPERTIES

AA Sequence	G G T A E K W E E T E L D Q L F S G P L P G R L P V N H R P F S A P H S S R D Q L P P P Q T G R S H P A H T A A P Q V T S T A S K L L P P V A F N H T I G H I V L S E H K N V K F N C S I N I P N T Y Q E T A G I S W W K D G K E L L G A H H S I T Q F Y P D E E G V S I I A L F S I A S V Q R S D N G S Y F C K M K V N N R E I V S D P I Y V E V Q G L P Y F I K Q P E S V 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 K P E R S P S V L T V P G L T E T A V F S C E A H N D K G L T V S K G V H I N I K V I P S P P T E V H I L N S T A H S I L V S W V P G F D G Y S P L Q N C S I Q V K E A D R L S N G S V M V F N T S A S P H L Y E I Q Q L Q A L A N Y S I A V S C R 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 I T V F L N E S N N I L D I R W T K P P I K R Q D G E L V G Y R I S H V W E S A G T Y K E L S E E V S Q N G S W A Q I P V Q I H N A T C T V R I A A I T K G G I G P F S E P V N I I I P E H S K V D Y A P S S T P A P G N T D S M
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
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.
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 is a receptor tyrosine kinase that mediates cellular signaling from the extracellular matrix to the cytoplasm through binding to ligands such as LGALS3, TUB, TULP1, or GAS6. It plays a crucial role in various physiological processes, including cell survival, migration, differentiation, and the phagocytosis of apoptotic cells. Activation of Mer by ligand binding leads to autophosphorylation on its intracellular domain, creating binding sites for downstream signaling molecules. This, in turn, triggers interactions with GRB2 or PLCG2 and subsequent phosphorylation of MAPK1, MAPK2, FAK/PTK2, or RAC1. Mer signaling is involved in macrophage clearance of apoptotic cells, platelet aggregation, cytoskeleton reorganization, and engulfment. Notably, within the retinal pigment epithelium (RPE), Mer serves as a regulator of phagocytosis of rod outer segment fragments. Additionally, Mer plays a pivotal role in inhibiting the innate immune response triggered by Toll-like receptors (TLRs) by activating STAT1, which selectively induces the production of suppressors of cytokine signaling SOCS1 and SOCS3.

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