

Mouse TEK Antibody Pair Set

Catalog No.	E-KAB-0597	Applications	ELISA
Synonyms	TEK;CD202B;TIE-2;TIE2;VMCM;VMCM1;TEK tyrosine kinase;TEK receptor tyrosine kinase;GLC3E		

Kit components & Storage

Title	Specifications	Storage
Mouse TEK Capture Antibody	1 vial, 100 µg	Store at -20°C for one year. Avoid freeze/thaw cycles.
Mouse TEK Detection Antibody (Biotin)	1 vial, 50 µL	Store at -20°C for one year. Avoid freeze/thaw cycles.

Note: Centrifuge before opening to ensure complete recovery of vial contents.

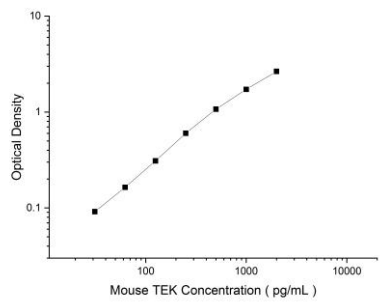
Product Information

Items		Characteristic (E-KAB-0597)	
		Mouse TEK Capture Antibody	Mouse TEK Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Mouse TEK protien	Recombinant Mouse TEK protien
	Swissprot	Q02858	
Product details	Reactivity	Mouse	Mouse
	Host	Goat	Goat
	Conjugation	Unconjugated	Biotin
	Concentration	0.5 mg/mL	/
	Buffer	PBS with 0.04% Proclin 300; 50% glycerol; pH 7.5	PBS with 0.04% Proclin 300; 1% protective protein; 50% glycerol; pH 7.5
	Purify	Antigen Affinity	Antigen Affinity
Specificity	Detects Mouse TEK in ELISAs.		

For Research Use Only

Applications

Mouse TEK Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images
ELISA Capture	0.5-4 µg/mL	Mouse TEK Capture Antibody	
ELISA Detection	1:1000-1:10000	Mouse TEK Detection Antibody (Biotin)	

Note: This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

Background

Tyrosine-protein kinase that acts as a cell-surface receptor for ANGPT1, ANGPT2 and ANGPT4 and regulates angiogenesis, endothelial cell survival, proliferation, migration, adhesion and cell spreading, reorganization of the actin cytoskeleton, but also maintenance of vascular quiescence. Has anti-inflammatory effects by preventing the leakage of pro-inflammatory plasma proteins and leukocytes from blood vessels. Required for normal angiogenesis and heart development during embryogenesis. Required for postnatal hematopoiesis. After birth, activates or inhibits angiogenesis, depending on the context. Inhibits angiogenesis and promotes vascular stability in quiescent vessels, where endothelial cells have tight contacts. In quiescent vessels, ANGPT1 oligomers recruit TEK to cell-cell contacts, forming complexes with TEK molecules from adjoining cells, and this leads to preferential activation of phosphatidylinositol 3-kinase and the AKT1 signaling cascades. In migrating endothelial cells that lack cell-cell adhesions, ANGPT1 recruits TEK to contacts with the extracellular matrix, leading to the formation of focal adhesion complexes, activation of PTK2/FAK and of the downstream kinases MAPK1/ERK2 and MAPK3/ERK1, and ultimately to the stimulation of sprouting angiogenesis. ANGPT1 signaling triggers receptor dimerization and autophosphorylation at specific tyrosine residues that then serve as binding sites for scaffold proteins and effectors. Signaling is modulated by ANGPT2 that has lower affinity for TEK, can promote TEK autophosphorylation in the absence of ANGPT1, but inhibits ANGPT1-mediated signaling by competing for the same binding site. Signaling is also modulated by formation of heterodimers with TIE1, and by proteolytic processing that gives rise to a soluble TEK extracellular domain. The soluble extracellular domain modulates signaling by functioning as decoy receptor for angiopoietins. TEK phosphorylates DOK2, GRB7, GRB14, PIK3R1, SHC1 and TIE1.