

Datasheet for ABIN6992355

**TEK Protein (AA 23-748) (Fc Tag)****3** Images[Go to Product page](#)

## Overview

Quantity:	100 µg
Target:	TEK
Protein Characteristics:	AA 23-748
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This TEK protein is labelled with Fc Tag.

## Product Details

Purpose:	Human TIE2 Protein, Fc Tag (MALS verified)
Purity:	>90 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

## Target Details

Target:	TEK
Alternative Name:	TIE2 ( <a href="#">TEK Products</a> )
Background:	Tyrosine-protein kinase that acts as 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 proinflammatory

Target Details

plasma proteins and leukocytes from blood vessels. Required for normal angiogenesis and heart development during embryogenesis. Required for post-natal 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.

Molecular Weight: 107.6 kDa

Pathways: [RTK Signaling](#), [Growth Factor Binding](#)

Application Details

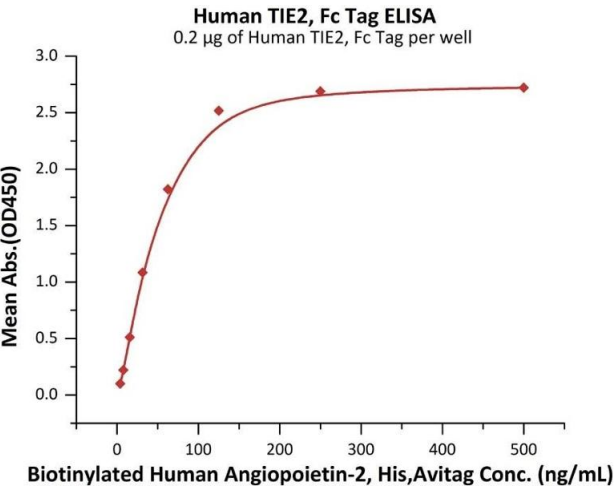
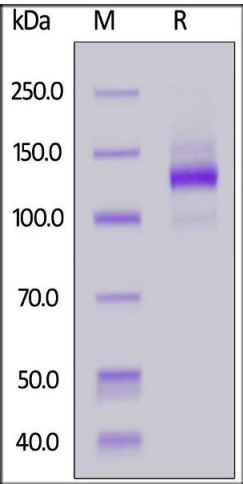
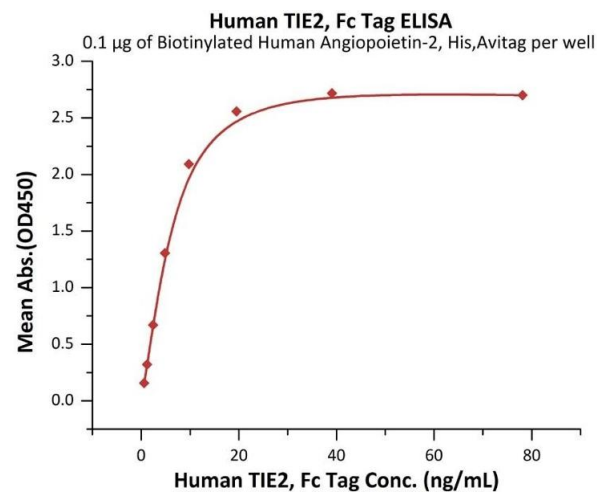
Restrictions: For Research Use only

Handling

Format: Lyophilized

Buffer: PBS, pH 7.4

Storage: -20 °C



**ELISA**

**Image 1.** Immobilized Biotinylated Human Angiopoietin-2, His,Avitag (ABIN6972942) at 1 µg/mL (100 µL/well) on streptavidin precoated (0.5 µg/well) plate can bind Human TIE2, Fc Tag (ABIN6992355) with a linear range of 0.6-10 ng/mL (QC tested).

**SDS-PAGE**

**Image 2.** Human TIE2, Fc Tag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90 % .

**ELISA**

**Image 3.** Immobilized Human TIE2, Fc Tag (ABIN6992355) at 2 µg/mL (100 µL/well) can bind Biotinylated Human Angiopoietin-2, His,Avitag (ABIN6972942) with a linear range of 4-63 ng/mL (Routinely tested).