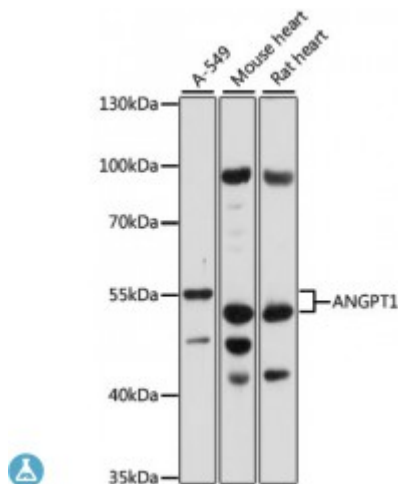


Anti-ANGPT1 Antibody



Description

This gene encodes a secreted glycoprotein that belongs to the angiopoietin family. Members of this family play important roles in vascular development and angiogenesis. All angiopoietins bind with similar affinity to an endothelial cell-specific tyrosine-protein kinase receptor. The protein encoded by this gene is a secreted glycoprotein that activates the receptor by inducing its tyrosine phosphorylation. It plays a critical role in mediating reciprocal interactions between the endothelium and surrounding matrix and mesenchyme and inhibits endothelial permeability. The protein also contributes to blood vessel maturation and stability, and may be involved in early development of the heart. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

Model	STJ117220
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	WB
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 161-293 of human ANGPT1 (NP_001186788.1).
Gene ID	284
Gene Symbol	ANGPT1
Dilution range	WB 1:500 - 1:2000
Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Angiopoietin-1 ANG-1

Molecular Weight	57.513 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:484OMIM:601667Reactome:R-HSA-210993
Alternative Names	Angiopoietin-1 ANG-1
Function	Binds and activates TEK/TIE2 receptor by inducing its dimerization and tyrosine phosphorylation, Plays an important role in the regulation of angiogenesis, endothelial cell survival, proliferation, migration, adhesion and cell spreading, reorganization of the actin cytoskeleton, but also maintenance of vascular quiescence, Required for normal angiogenesis and heart development during embryogenesis, 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, Mediates blood vessel maturation/stability, Implicated in endothelial developmental processes later and distinct from that of VEGF, Appears to play a crucial role in mediating reciprocal interactions between the endothelium and surrounding matrix and mesenchyme,
Cellular Localization	Secreted
Post-translational Modifications	Glycosylated