Leinco Technologies, Inc.
excellence in early discovery research™

Mouse CD105 (Endoglin) Antibody

Purified in vivo GOLD™ Functional Grade

Monoclonal Antibody

Product Information

Product No.:	C911
Clone:	MJ7/18
Isotype:	Rat IgG2a κ
Storage:	Sterile 2-8°C

Product Description

Specificity:
MJ7/18 activity is directed against mouse CD105 (endoglin).

Background:
CD105 (endoglin) is a TGF-β superfamily co-receptor that promotes angiogenesis, is involved in endothelial integrin-mediated mural cell and leukocyte adhesion, antagonizes TGF-β mediated ERK activation, is essential to the immune response of macrophages, regulates trophoblast differentiation and invasion during pregnancy, promotes T-cell proliferation, and regulates differentiation and collagen expression in myofibroblasts[1]. CD105 is dysregulated in the vasculature of multiple diseases including cancer, preeclampsia, and hereditary hemorrhagic telangiectasia. Additionally, increased soluble CD105 is associated with numerous cardiovascular pathologies and metabolic disorders with some CD105 polymorphisms being associated with increased risk of cardiovascular damage. CD105 is an effective marker of the tumor vasculature and is a target for early cancer diagnosis and antiangiogenic therapies.

CD105 is alternatively spliced, resulting in both long (L-endoglin) and short (S-endoglin) forms[1]. The predominant isoform, L-endoglin, promotes the proliferation and migration of endothelial cells via enhanced ALK1-Smad1/5 signaling and is the presumed isoform when not specified in the literature. In contrast, S-endoglin enhances ALK5-Smad2/3 signaling. Endoglin has specific receptor-ligand interactions between type I and type II TGF-β superfamily receptors when binding TGF-β superfamily ligands. Mouse CD105 has three separate regions of similarity to TGF-β receptor III but does not contain the RGD tripeptide found in human CD105[2].

MJ7/18 was produced by immunizing rats with inflamed mouse skin and selecting for reactivity with endothelial cells[2, 3]. MJ7/18 predominantly stains vascular endothelial cells and is a marker of mouse endothelium[2, 4].

Known Reactivity Species:
Mouse

Format:
Purified in vivo GOLD™ Functional Grade

Immunogen:
Inflamed mouse skin

Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity

≥95% monomer by analytical SEC, >95% by SDS Page

Endotoxin

< 1.0 EU/mg as determined by the LAL method

Storage and Stability
Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C.
Avoid Repeated Freeze Thaw Cycles.

Product Preparation
Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Applications
Applications and Recommended Usage (Quality Tested By Leinco):

FC[2, 5, 11, 12, 13, 14],
WB[2, 5, 6, 7],
ELISA[6]

Other Applications Reported in Literature:
IHC[2, 4, 7, 8, 9, 10],
IHC FF[19]
IF[5],
IF Microscopy[6],
IP[7],
Cell Sep-Pos[12, 15],
Agonist[14, 16],
LCI[17, 18]

Country of Origin
USA

References
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