



Anti-mouse CD105/Endoglin-Biotin (#MJ7/18)

20140414BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	103-MBi60
Size:	50 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Monoclonal antibodies were produced by immunizing rats with inflamed mouse skin.

Target Background

Synonyms:	Cell surface MJ7/18 antigen, CD105, Endoglin
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Mouse Endoglin is a disulfide-linked homodimeric protein. Based on N-terminal sequence analysis the primary structure of recombinant mature Endoglin starts at Glu 26. Endoglin has a calculated monomeric molecular mass of 61 kDa but as a result of glycosylation, migrates at approximately 70 - 75 kDa under reducing conditions in SDS-PAGE. Endoglin, also known as CD105, is a Type I integral membrane glycoprotein with a large, disulfide-linked, extracellular region and a short, constitutively phosphorylated, cytoplasmic tail. Two splice variants of human Endoglin, the S-Endoglin and L-Endoglin that differ in the length of their cytoplasmic tails have been identified. Endoglin is highly expressed on vascular endothelial cells, chondrocytes, and syncytiotrophoblasts of term placenta. It is also found on activated monocytes, bone marrow pro-erythroblasts, and leukemic cells of lymphoid and myeloid lineages. Human and mouse Endoglin share approximately 70% and 97 % amino acid sequence identity in their extracellular and intracellular domains, respectively. Endoglin binds TGF-β1 and TGF-β3 but not TGF-β2 efficiently by associating with TGF-β type II receptor (TβRII).

Endoglin has been shown to be a powerful marker of neovascularization. It is also useful as a functional marker that defines long-term repopulating hematopoietic stem cells.

References

1. Cheifetz *et al.*, J Biol Chem 267:19027, 1992
2. Parker *et al.*, J Bone Miner Res 18:289, 2003
3. Barbara *et al.*, J Biol Chem 274:584, 1999
4. McAllister *et al.*, Nature Genet 8:345, 1994
5. Chen *et al.*, Proc Natl Acad Sci 99:15468, 2002

Database References Antigen

Protein RefSeq:	NP_031958.2
Uniprot ID:	Q63961
mRNA RefSeq:	NM_007932.2

Product Specifications

Species reactivity	mouse
Clone/Ab feature	IgG2a; #MJ7/18
Host	rat
Clonality	monoclonal
Purification	Protein G purified
Immunogen	murine stromal cell line
Formulation	lyophilized
Buffer/Stabilizer	PBS; 50X BSA
Preservative	0,02% sodium azide
Conjugation	Biotin

Warnings: Reagents contain sodium azide. Under acidic conditions sodium azide yields hydrazoic acid, this is extremely toxic. Azide compounds should be diluted with running water before discarding. These precautions are recommended to avoid deposits in plumbing where explosive condition may develop.

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



AVOID REPEATED FREEZE AND THAW CYCLES!

Specificity: The unconjugated antibody will detect native mouse CD105 in Western analysis.

Applications

FACS: Use at 3-20 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!



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Handling/Applications

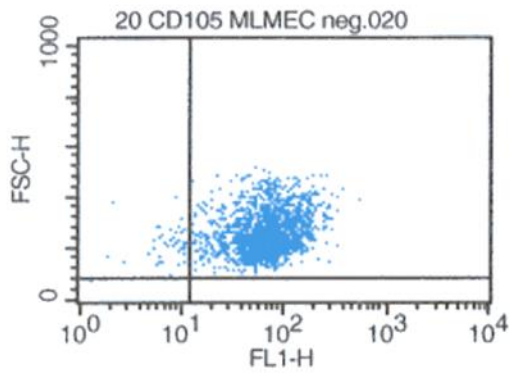


Figure 1: FACS analysis with mouse lung microvascular endothelial cells (MLMEC).