



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

20131216BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>103-M60-FITC</b>
Size:	50 µg (in 250 µl)
Concentration:	200 µg/ml
Lot. No.:	According to product label
Country of origin:	Germany

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

### Target Background

<b>Synonyms:</b>	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

<b>Protein RefSeq:</b>	NP_031958.2
<b>Uniprot ID:</b>	Q63961
<b>mRNA RefSeq:</b>	NM_007932.2

### Product Specifications

<b>Species reactivity</b>	mouse
<b>Clone/Ab feature</b>	#MJ7/18 / IgG2a
<b>Host</b>	rat
<b>Clonality</b>	monoclonal
<b>Purification</b>	Protein G purified
<b>Immunogen</b>	murine stromal cell line
<b>Formulation</b>	liquid
<b>Buffer/Stabilizer</b>	PBS; 1% BSA
<b>Preservative</b>	0,02% sodium azide
<b>Conjugation</b>	FITC

**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.

**Storage:** Store protected from light at 2-8°C. **Do not freeze!**



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

### Applications Tested

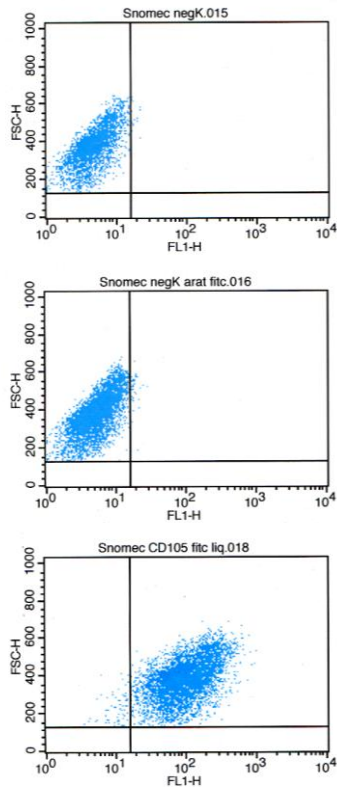
**FACS:** The suggested use of the antibody is ≤ 0.5 µg in 100 µl volume. It is recommended that the conjugate antibody should be titrated for optimal performance for each application.

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

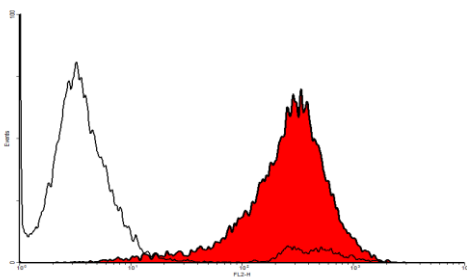


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### Handling/Applications



**Figure 1:** FACS analysis with mouse endothelial cells. Upper panel: no primary antibody; Middle panel: solely conjugated secondary antibody; Lower panel: FITC-conjugated anti-mouse CD105 antibody.



**Figure 2:** FACS analysis with mouse endothelial cells.