Anti-human CD105/Endoglin

20150505BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**102-PA60**
Size:	200 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits pre-immunized with highly pure recombinant human soluble CD105/Endoglin (Glu22-Leu586) derived from insect cells.

Target Background

Synonyms:	Bone morphogenetic protein receptor type-1A, Activin receptor-like kinase 3, CD292

A DNA sequence encoding the extracellular domain of human Endoglin (Met 1 - Leu 586) was expressed in insect cells. Human 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 61kDa but as a result of glycosylation, migrates at approximately 70 - 75kDa 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 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. Arthur et al., Dev Biol 217:42, 2000
5. McAllister et al., Nature Genet 8:345, 1994
6. Fonsatti et al., J Cell Physiol 188:1, 2001].
7. Steiniger BS et al, Immunology 143(3):462-77, 2014

Database References Antigen

Protein RefSeq:	NP_000109
Uniprot ID:	P17813
mRNA RefSeq:	NM_000118

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant human sCD105/Endoglin (RT #S01-025)
Formulation	lyophilized
Buffer	PBS

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!

Applications

ELISA:	Use 1-15 µg/ml
Western Blot:	Use 1-5 mg/ml
FACS	Use at 2-5 µg/ml
IF/IHC	Use at 1-5 µg/ml

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

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Handling/Applications

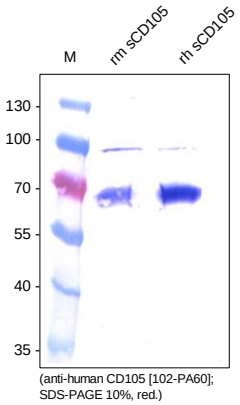

Figure 1. Western analysis of recombinant human [Cat# S01-024] and human [Cat# S01-022] soluble CD105 using an anti-human CD105 antibody [Cat# 102-PA60] directed against recombinant human and mouse soluble CD105 produced in insect cells. The SDS-PAGE was run under reducing conditions. There is a strong cross reaction between human and mouse visible.

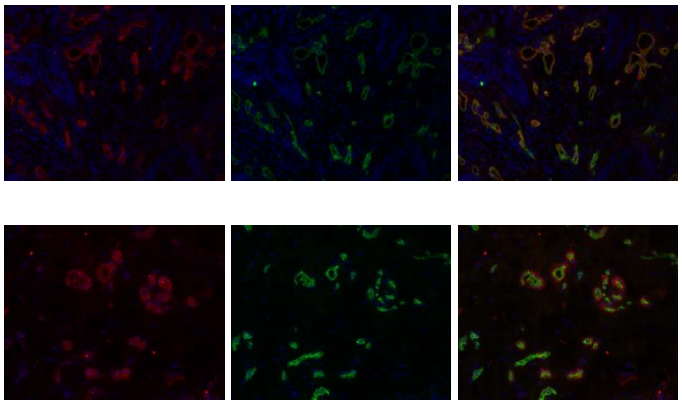

Figure 2: Double staining of human colon and colon carcinoma tissue with Endoglin (Cat# 102-PA60) / CD31
The experiments were perfomed by Dr. Ulrike Fiedler and Stefanie Koidel, Dept. of Vascular Biology and Angiogenesis Research, Tumor Biology Center, Breisacher Str. 117, D-79106 Freiburg, Germany

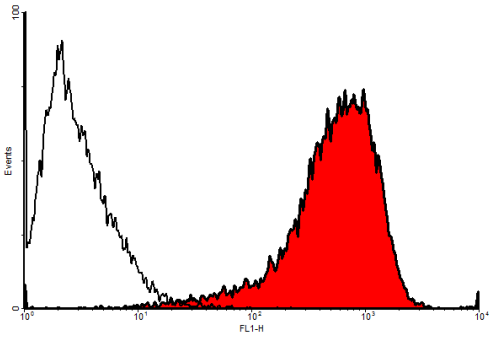

Figure 3. FACS analysis with primary human umbilical vein endothelial cells (HUVEC).

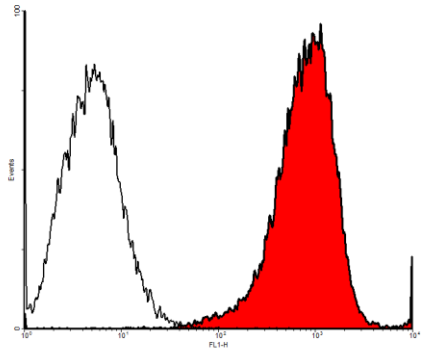

Figure 4. FACS analysis with primary human dermal lymphatic endothelial cells (HDLEC).