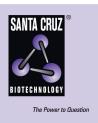
# SANTA CRUZ BIOTECHNOLOGY, INC.

# Endoglin (M-20): sc-19793



# BACKGROUND

Hereditary hemorrhagic telangiectasia (HHT) is an autosomal dominant disorder characterized by vascular abnormalities such as dilated vessels, hemorrhages, liver and lung congestion, and brain or heart ischemia. Mutations in two genes, Endoglin (also designated CD105) and ALK-1 (activin receptor-like kinase 1, also designated TGF $\beta$  RI), are responsible for HHT. Endoglin is mutated in HHT1, and ALK-1 is mutated in HHT2, both of which are thought to be caused by haploinsufficiency. Endoglin and ALK-1 are type III and type I members of the TGF $\beta$  receptor superfamily, respectively, that are expressed on vascular endothelial cells. Endoglin can only bind ligands of the TGF $\beta$ 1, TGF $\beta$ 3, Activin-A, BMP-2 and BMP-7. The human ALK-1 gene encodes two protein species which exist as a result of either glycosylation or alternative splicing events. ALK-1 preferentially binds TGF $\beta$ 1 and is expressed in bone marrow stromal cells, lung, brain, kidney and spleen.

# CHROMOSOMAL LOCATION

Genetic locus: Eng (mouse) mapping to 2 B.

# SOURCE

Endoglin (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Endoglin of mouse origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19793 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

# **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### **APPLICATIONS**

Endoglin (M-20) is recommended for detection of Endoglin of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Endoglin siRNA (m): sc-35303, Endoglin shRNA Plasmid (m): sc-35303-SH and Endoglin shRNA (m) Lentiviral Particles: sc-35303-V.

Molecular Weight of reduced Endoglin: 84 kDa.

Molecular Weight of non-reduced Endoglin: 130 kDa.

Positive Controls: mouse embryo extract: sc-364239.

#### SELECT PRODUCT CITATIONS

- Miletic, H., et al. 2007. Bystander killing of malignant glioma by bone marrow-derived tumor-infiltrating progenitor cells expressing a suicide gene. Mol. Ther. 15: 1373-1381.
- Harting, M., et al. 2008. Immunophenotype characterization of rat mesenchymal stromal cells. Cytotherapy 10: 243-253.
- 3. Karaoz, E. 2009. Pancreatic islet-derived stem cells may have a key role in type 1 diabetes pathogenesis. Cell Tissue Biol. Res. 2: 8-22.
- Karaoz, E., et al. 2009. Characterization of mesenchymal stem cells from rat bone marrow: ultrastructural properties, differentiation potential and immunophenotypic markers. Histochem. Cell Biol. 132: 533-546.
- Karaöz, E., et al. 2010. Isolation and *in vitro* characterisation of dental pulp stem cells from natal teeth. Histochem. Cell Biol. 133: 95-112.
- 6. Karaoz, E., et al. 2010. Protection of rat pancreatic islet function and viability by coculture with rat bone marrow-derived mesenchymal stem cells. Cell Death Dis. 1: e36.
- Karaoz, E., et al. 2010. Isolation and characterization of stem cells from pancreatic islet: pluripotency, differentiation potential and ultrastructural characteristics. Cytotherapy 12: 288-302.
- Karaoz, E., et al. 2010. Pancreatic islet derived stem cells can express co-stimulatory molecules of antigen-presenting cells. Transplant. Proc. 42: 3663-3670.
- Karaöz, E., et al. 2011. A comprehensive characterization study of human bone marrow mscs with an emphasis on molecular and ultrastructural properties. J. Cell. Physiol. 226: 1367-1382.
- Karaöz, E., et al. 2011. Human dental pulp stem cells demonstrate better neural and epithelial stem cell properties than bone marrow-derived mesenchymal stem cells. Histochem. Cell Biol. 136: 455-473.
- Adas, G., et al. 2011. Mesenchymal stem cells improve the healing of ischemic colonic anastomoses (experimental study). Langenbecks Arch. Surg. 396: 115-126.
- Karaoz, E., et al. 2012. Reduction of lesion in injured rat spinal cord and partial functional recovery of motility after bone marrow derived mesenchymal stem cell transplantation. Turk. Neurosurg. 22: 207-217.



Try Endoglin (P3D1): sc-18838 or Endoglin (MJ7/18): sc-18893, our highly recommended monoclonal aternatives to Endoglin (M-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see Endoglin (P3D1): sc-18838.