

Endoglin (C-20): sc-19790

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 β Superfamily 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 β receptor superfamily, respectively, that are expressed on vascular endothelial cells. Endoglin can only bind ligands of the TGF β superfamily via association with the respective ligand binding receptors for TGF β 1, TGF β 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 β 1 and is expressed in bone marrow stromal cells, lung, brain, kidney and spleen.

CHROMOSOMAL LOCATION

Genetic locus: ENG (human) mapping to 9q34.11.

SOURCE

Endoglin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Endoglin of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19790 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Endoglin (C-20) is recommended for detection of Endoglin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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 (h): sc-35302, Endoglin shRNA Plasmid (h): sc-35302-SH and Endoglin shRNA (h) Lentiviral Particles: sc-35302-V.

Molecular Weight of reduced Endoglin: 84 kDa.

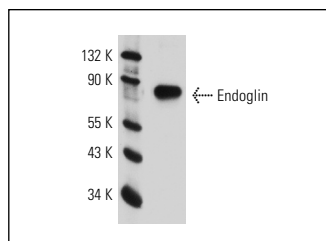
Molecular Weight of non-reduced Endoglin: 130 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HEL 92.1.7 cell lysate: sc-2270 or AML-193 whole cell lysate: sc-364182.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Endoglin (C-20): sc-19790. Western blot analysis of human recombinant Endoglin.

SELECT PRODUCT CITATIONS

- Salasznyk, R.M., et al. 2007. Focal adhesion kinase signaling pathways regulate the osteogenic differentiation of human mesenchymal stem cells. *Exp. Cell Res.* 313: 22-37.
- Mitterberger, M.C., et al. 2012. DLK1(PREF1) is a negative regulator of adipogenesis in CD105+/CD90+/CD34+/CD31-/FABP4- adipose-derived stromal cells from subcutaneous abdominal fat pads of adult women. *Stem Cell Res.* 9: 35-48.
- Kapur, N.K., et al. 2012. Reduced endoglin activity limits cardiac fibrosis and improves survival in heart failure. *Circulation* 125: 2728-2738.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Endoglin (P3D1): sc-18838** or **Endoglin (A-8): sc-376381**, our highly recommended monoclonal alternatives to Endoglin (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Endoglin (P3D1): sc-18838**.