**Endoglin (MJ7/18): sc-18893**

**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 TGFβ 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 TGFβ receptor superfamily, respectively, that are expressed on vascular endothelial cells. Endoglin can only bind ligands of the TGFβ superfamily via association with the respective ligand binding receptors for TGFβ1, TGFβ3, 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 TGFβ1 and is expressed in bone marrow stromal cells, lung, brain, kidney and spleen.

**CHROMOSOMAL LOCATION**

Genetic locus: ENG (human) mapping to 9q34.11; Eng (mouse) mapping to 2 B.

**SOURCE**

Endoglin (MJ7/18) is a rat monoclonal antibody raised against inflamed skin tissue of mouse origin.

**PRODUCT**

Each vial contains 200 μg IgG2a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Endoglin (MJ7/18) is available conjugated to either phycoerythrin (sc-18893 PE) or fluorescein (sc-18893 FITC), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM.

**APPLICATIONS**

Endoglin (MJ7/18) is recommended for detection of Endoglin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).


Molecular Weight of reduced Endoglin: 84 kDa.

Molecular Weight of non reduced Endoglin: 130 kDa.

Positive Controls: Endoglin (m): 293T Lysate: sc-126793 or mouse embryo extract: sc-364239.

**STORAGE**

Store at 4°C. **DO 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.

**DATA**

Endoglin (MJ7/18): sc-18893. Western blot analysis of Endoglin expression in non-transfected: sc-117752 (A) and mouse Endoglin transfected: sc-126793 (B) 293T whole cell lysates.

Endoglin (MJ7/18): sc-18893. Immunofluorescence staining of methanol-fixed JAR cells showing membrane localization.

**SELECT PRODUCT CITATIONS**