

MIS (E-19): sc-34833

BACKGROUND

The transforming growth factor β (TGF β) superfamily is composed of numerous growth and differentiation factors, including TGF β 1-3, Mullerian inhibiting substance (MIS), growth/differentiation factor (GDF) 1-9, bone morphogenic protein (BMP) 2-8, glial cell line-derived neurotrophic factor (GDNF), Inhibin α , β -A, β -B and β -C, Lefty and Nodal. Members of the TGF β superfamily are involved in embryonic development and adult tissue homeostasis. The MIS glycoprotein is produced by the sertoli cells of the testis. Fetal testis produce both MIS and testosterone, the presence of which result in male offspring. Absence of MIS and testosterone in a developing fetus results in the induction of Mullerian duct differentiation, and Wolffian duct development is not induced. Testosterone induces the differentiation of the Wolffian ducts whereas MIS causes regression of the Mullerian duct. MIS inhibits the growth of tumors derived from tissues of Mullerian duct origin. MIS can also inhibit the autophosphorylation of the EGF receptor *in vitro*. Defects in anti-mullerian hormone are the cause of persistent Mullerian duct syndrome type I (PMDS-1). PMDS-1 is a form of male pseudohermaphroditism characterized by a failure of Mullerian duct regression in otherwise normal males.

CHROMOSOMAL LOCATION

Genetic locus: AMH (human) mapping to 19p13.3; Amh (mouse) mapping to 10 C1.

SOURCE

MIS (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MIS 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-34833 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MIS (E-19) is recommended for detection of precursor and mature MIS of mouse, rat and 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).

MIS (E-19) is also recommended for detection of precursor and mature MIS in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MIS siRNA (h): sc-39793, MIS siRNA (m): sc-39794, MIS shRNA Plasmid (h): sc-39793-SH, MIS shRNA Plasmid (m): sc-39794-SH, MIS shRNA (h) Lentiviral Particles: sc-39793-V and MIS shRNA (m) Lentiviral Particles: sc-39794-V.

Molecular Weight of MIS: 70/74 kDa.

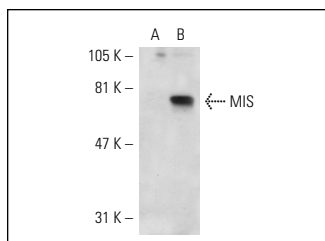
Molecular Weight of unreduced MIS: 140 kDa.

Positive Controls: MIS (h): 293 Lysate: sc-111265.

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



MIS (E-19): sc-34833. Western blot analysis of MIS expression in non-transfected 293: sc-110760 (A) and human MIS transfected 293: sc-111265 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ford, J.J. and Wise, T.H. 2009. Sertoli cell differentiation in pubertal boars. *J. Anim. Sci.* 87: 2536-2543.

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.

PROTOCOLS

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



Try **MIS (B-11): sc-166752** or **MIS (A-9): sc-377140**, our highly recommended monoclonal alternatives to MIS (E-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MIS (B-11): sc-166752**.