

Inhibin β -A (C-18): sc-6308

BACKGROUND

The TGF β superfamily is composed of numerous growth and differentiation factors, including transforming growth factor β (TGF β) 1, 2 and 3; growth/differentiation factor (GDF) 1 through 8; Mullerian inhibiting substance (MIS); bone morphogenic protein (BMP) 2 through 8; glial cell line-derived neurotrophic factor (GDNF); inhibins (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. Inhibins and activins inhibit and activate, respectively, the secretion of follitropin by the pituitary gland. Inhibins and activins are involved in regulating a number of functions such as hypothalamic and pituitary hormone secretion, gonadal hormone secretion, germ cell development and maturation, erythroid differentiation, insulin secretion, nerve cell survival, embryonic axial development or bone growth depending on their subunit composition. Activins oppose the functions of inhibins. Inhibins are predominantly expressed in liver, uterus and ovary tissue. Inhibin A, a dimer of α and β -A, and inhibin B, a dimer of α and β -B, have been shown to inhibit the secretion of follicle stimulating hormone. Inhibin β -C forms a homodimer and its expression is predominant in adult liver.

REFERENCES

1. Stewart, A.G., et al. 1986. Human inhibin genes. Genomic characterisation and sequencing. FEBS Lett. 206: 329-334.
2. Mayo, K.E., et al. 1986. Inhibin A-subunit cDNAs from porcine ovary and human placenta. Proc. Natl. Acad. Sci. USA 83: 5849-5853.
3. Massague, J., et al. 1987. Multiple type- β transforming growth factors and their receptors. J. Cell. Physiol. Suppl. 5: 43-47.
4. Albano, R.M., et al. 1993. Activins are expressed in preimplantation mouse embryos and in ES and EC cells and are regulated on their differentiation. Development 117: 711-723.
5. Schmitt, J., et al. 1996. Structure, chromosomal localization and expression analysis of the mouse inhibin/Activin β -C (Inh β C) gene. Genomics 32: 358-366.
6. McPherron, A.C., et al. 1997. Regulation of skeletal muscle mass in mice by a new TGF β superfamily member. Nature 387: 83-90.

CHROMOSOMAL LOCATION

Genetic locus: INHBA (human) mapping to 7p14.1; Inhba (mouse) mapping to 13 A1.

SOURCE

Inhibin β -A (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Inhibin β -A 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-6308 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Inhibin β -A (C-18) is recommended for detection of precursor and mature Inhibin β -A of mouse, rat and human 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).

Inhibin β -A (C-18) is also recommended for detection of precursor and mature Inhibin β -A in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Inhibin β -A siRNA (h): sc-39783, Inhibin β -A siRNA (m): sc-39784, Inhibin β -A shRNA Plasmid (h): sc-39783-SH, Inhibin β -A shRNA Plasmid (m): sc-39784-SH, Inhibin β -A shRNA (h) Lentiviral Particles: sc-39783-V and Inhibin β -A shRNA (m) Lentiviral Particles: sc-39784-V.

Molecular Weight of Inhibin β -A: 40-47 kDa.

Positive Controls: A549 cell lysate: sc-2413 or mouse testis extract: sc-2405.

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) 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.

SELECT PRODUCT CITATIONS

1. Qian, J., et al. 2005. *In vitro* modeling of human pancreatic duct epithelial cell transformation defines gene expression changes induced by K-ras oncogenic activation in pancreatic carcinogenesis. Cancer Res. 65: 5045-5053.
2. Licona, P., et al. 2006. Inhibins are the major activin ligands expressed during early thymocyte development. Dev. Dyn. 235: 1124-1132.

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.

MONOS
Satisfaction
Guaranteed

Try **Inhibin β -A (E-1): sc-166503**, our highly recommended monoclonal alternative to Inhibin β -A (C-18).