SANTA CRUZ BIOTECHNOLOGY, INC.

Inhibin β-A (h): 293T Lysate: sc-110087

BACKGROUND

The TGFβ superfamily is composed of numerous growth and differentiation factors, including transforming growth factor β (TGFβ) 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 TGFβ 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 funtions 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 characterization 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. 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 (Inhbc) gene. Genomics 32: 358-366.
6. McPherron, A.C., et al. 1997. Regulation of skeletal muscle mass in mice by a new TGFβ superfamily member. Nature 387: 83-90.

CHROMOSOMAL LOCATION

Genetic locus: INHBA (human) mapping to 7p14.1.

PRODUCT

Inhibin β-A (h): 293T Lysate represents a lysate of human Inhibin β-A transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

Inhibin β-A (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Inhibin β-A antibodies. Recommended use: 10-20 µl per lane.

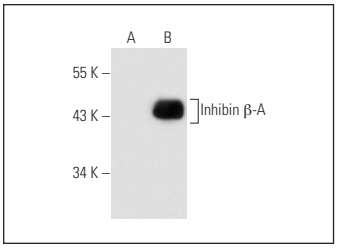
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Inhibin β-A (E-1): sc-166503 is recommended as a positive control antibody for Western Blot analysis of enhanced human Inhibin β-A expression in Inhibin β-A transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Inhibin β-A (E-1): sc-166503. Western blot analysis of Inhibin β-A expression in non-transfected: sc-117752 (**A**) and human Inhibin β-A transfected: sc-110087 (**B**) 293T whole cell lysates.

PROTOCOLS

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