

Inhibin β -B (B-9): sc-390959

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. Massague, J. 1990. The transforming growth factor- β family. Annu. Rev. Cell Biol. 6: 597-641.
5. 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.

CHROMOSOMAL LOCATION

Genetic locus: INHBB (human) mapping to 2q14.2; Inhbb (mouse) mapping to 1 E2.3.

SOURCE

Inhibin β -B (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 349-381 near the C-terminus of Inhibin β -B of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_3$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390959 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Inhibin β -B (B-9) is recommended for detection of Inhibin β -B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Inhibin β -B (B-9) is also recommended for detection of Inhibin β -B in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Inhibin β -B siRNA (h): sc-43861, Inhibin β -B siRNA (m): sc-39786, Inhibin β -B shRNA Plasmid (h): sc-43861-SH, Inhibin β -B shRNA Plasmid (m): sc-39786-SH, Inhibin β -B shRNA (h) Lentiviral Particles: sc-43861-V and Inhibin β -B shRNA (m) Lentiviral Particles: sc-39786-V.

Molecular Weight of Inhibin β -B: 45 kDa.

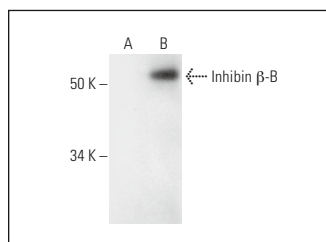
Positive Controls: Inhibin β -B (h): 293T Lysate: sc-159290.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Inhibin β -B (B-9): sc-390959. Western blot analysis of Inhibin β -B expression in non-transfected: sc-117752 (A) and human Inhibin β -B transfected: sc-159290 (B) 293T whole cell lysates.

STORAGE

Store at 4 $^{\circ}$ 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.