

Inhibin β -B (H-8): sc-376971

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.

CHROMOSOMAL LOCATION

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

SOURCE

Inhibin β -B (H-8) is a mouse monoclonal antibody raised against amino acids 298-407 mapping at the C-terminus of Inhibin β -B of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Inhibin β -B (H-8) is available conjugated to agarose (sc-376971 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376971 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376971 PE), fluorescein (sc-376971 FITC), Alexa Fluor[®] 488 (sc-376971 AF488), Alexa Fluor[®] 546 (sc-376971 AF546), Alexa Fluor[®] 594 (sc-376971 AF594) or Alexa Fluor[®] 647 (sc-376971 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376971 AF680) or Alexa Fluor[®] 790 (sc-376971 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

Inhibin β -B (H-8) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

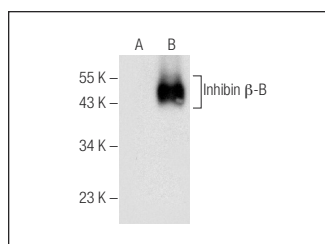
Inhibin β -B (H-8) is also recommended for detection of Inhibin β -B in additional species, including bovine and porcine.

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.

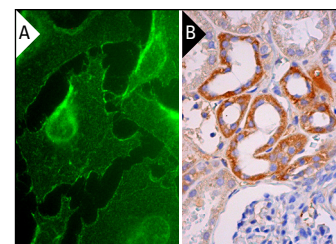
Molecular Weight of Inhibin β -B: 45 kDa.

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

DATA



Inhibin β -B (H-8): sc-376971. 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.



Inhibin β -B (H-8): sc-376971. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

1. Goel, S. and Minami, N. 2019. Altered hormonal milieu and dysregulated protein expression can cause spermatogenic arrest in ectopic xenografted immature rat testis. Sci. Rep. 9: 4036.
2. Karakaya, F.B., et al. 2021. Histological analysis of the effects of thymoquinone on testicular damage in pentylene tetrazole-induced temporal lobe epilepsy model. Andrologia 53: e14130.
3. Li, Y., et al. 2022. Development of the human fetal testis: morphology and expression of cellular differentiation markers. Differentiation. E-published.
4. Overland, M.R., et al. 2022. Development of the human ovary: fetal through pubertal ovarian morphology, folliculogenesis and expression of cellular differentiation markers. Differentiation. E-published.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.