

Inhibin β -A (E-1): sc-166503

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.

CHROMOSOMAL LOCATION

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

SOURCE

Inhibin β -A (E-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 307-426 mapping at the C-terminus of Inhibin β -A 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 -A (E-1) is available conjugated to agarose (sc-166503 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166503 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166503 PE), fluorescein (sc-166503 FITC), Alexa Fluor[®] 488 (sc-166503 AF488), Alexa Fluor[®] 546 (sc-166503 AF546), Alexa Fluor[®] 594 (sc-166503 AF594) or Alexa Fluor[®] 647 (sc-166503 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166503 AF680) or Alexa Fluor[®] 790 (sc-166503 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166503 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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.

APPLICATIONS

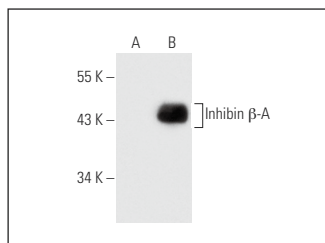
Inhibin β -A (E-1) is recommended for detection of precursor and mature Inhibin β -A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting 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 -A (E-1) is also recommended for detection of precursor and mature Inhibin β -A in additional species, including bovine and porcine.

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.

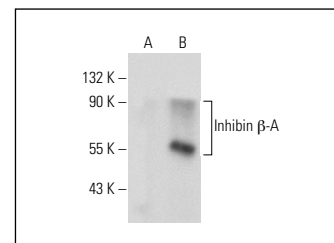
Molecular Weight of Inhibin β -A: 40-47 kDa.

Positive Controls: Inhibin β -A (m): 293T Lysate: sc-121067, Inhibin β -A (h): 293T Lysate: sc-110087 or A549 cell lysate: sc-2413.

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.



Inhibin β -A (E-1): sc-166503. Western blot analysis of Inhibin β -A expression in non-transfected: sc-117752 (A) and mouse Inhibin β -A transfected: sc-121067 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Guven, S., et al. 2015. Functional maintenance of differentiated embryoid bodies in microfluidic systems: a platform for personalized medicine. *Stem Cells Transl. Med.* 4: 261-268.
2. Wang, Y., et al. 2019. MicroRNA-608 sensitizes non-small cell lung cancer cells to cisplatin by targeting TEAD2. *Mol. Med. Rep.* 20: 3519-3526.
3. Han, K.H., et al. 2021. Role of microRNA-375-3p-mediated regulation in tinnitus development. *Int. J. Mol. Med.* 48: 136.
4. Kao, C.C., et al. 2022. DNA hypomethylation is associated with the over-expression of INHBA in upper tract urothelial carcinoma. *Int. J. Mol. Sci.* 23: 2072.
5. Cai, S., et al. 2023. Transcriptomic analysis of the upper lip and primary palate development in mice. *Front. Genet.* 13: 1039850.

PROTOCOLS

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