

Inhibin α (D-4): sc-365439

BACKGROUND

Inhibin is a gonadal protein that preferentially suppresses the secretion of pituitary follicle-stimulating hormone (FSH). Inhibin comprises two subunits, Inhibin A and Inhibin B. Each subunit consists of the same α subunit, covalently linked to 1 of 2 distinct subunits, β - α or β - β . Originally isolated from ovarian follicular fluid and characterized as a disulphide-linked dimeric glycoprotein, inhibin belongs to the transforming growth factor β (TGF β) superfamily of growth and differentiation factors. TGF β proteins affect a range of tissues and systems beyond their role in reproduction. In addition to their role in endocrine feedback in the reproductive system, inhibins subserve local regulatory roles in numerous extragonadal tissues, including brain, adrenal, bone marrow, placenta and, most notably, anterior pituitary. Inhibin α -subunit gene expression is down regulated in human prostate cancer, suggesting a tumor-suppressive role. The human Inhibin α gene maps to chromosome 2q35.

REFERENCES

- Mayo, K.E., et al. 1986. Inhibin A-subunit cDNAs from porcine ovary and human placenta. *Proc. Natl. Acad. Sci. USA* 83: 5849-5853.
- Kong, D.J. and Cheng, Z.P. 1995. Progress in the study of inhibin subunit gene expression and regulation in mammalian ovary. *Sheng Li Ke Xue Jin Zhan* 26: 204-208.
- Knight, P.G. 1996. Roles of inhibins, activins, and follistatin in the female reproductive system. *Front. Neuroendocrinol.* 17: 476-509.
- Mather, J.P., et al. 1997. Activins, inhibins, and follistatins: further thoughts on a growing family of regulators. *Proc. Soc. Exp. Biol. Med.* 215: 209-222.
- Risbridger, G.P. and Cancilla, B. 2000. Role of activins in the male reproductive tract. *Rev. Reprod.* 5: 99-104.
- Schmitt, J.F., et al. 2002. Hypermethylation of the inhibin α -subunit gene in prostate carcinoma. *Mol. Endocrinol.* 16: 213-220.

CHROMOSOMAL LOCATION

Genetic locus: INHA (human) mapping to 2q35.

SOURCE

Inhibin α (D-4) is a mouse monoclonal antibody raised against amino acids 233-366 mapping at the C-terminus of Inhibin α of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Inhibin α (D-4) is available conjugated to agarose (sc-365439 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365439 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365439 PE), fluorescein (sc-365439 FITC), Alexa Fluor[®] 488 (sc-365439 AF488), Alexa Fluor[®] 546 (sc-365439 AF546), Alexa Fluor[®] 594 (sc-365439 AF594) or Alexa Fluor[®] 647 (sc-365439 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365439 AF680) or Alexa Fluor[®] 790 (sc-365439 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Inhibin α (D-4) is recommended for detection of precursor and mature chain of Inhibin α of 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).

Suitable for use as control antibody for Inhibin α siRNA (h): sc-39781, Inhibin α shRNA Plasmid (h): sc-39781-SH and Inhibin α shRNA (h) Lentiviral Particles: sc-39781-V.

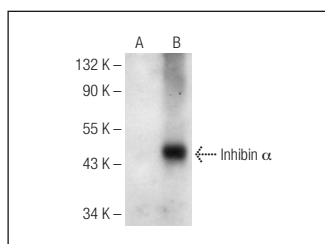
Molecular Weight of Inhibin α : 47 kDa.

Positive Controls: Inhibin α (h2): CHO Lysate: sc-110086.

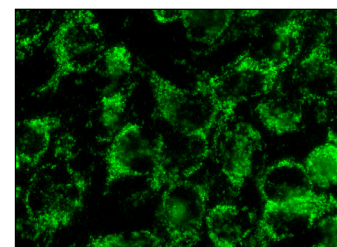
RECOMMENDED SUPPORT REAGENTS

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 Marker[™] 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 α (D-4): sc-365439. Western blot analysis of Inhibin α expression in non transfected: sc-117750 (A) and human Inhibin α transfected: sc-110086 (B) CHO whole cell lysates.



Inhibin α (D-4): sc-365439. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Singh, P., et al. 2018. Inhibin is a novel paracrine factor for tumor angiogenesis and metastasis. *Cancer Res.* 78: 2978-2989.

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.