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INHA Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1465a

Product Information

Application	WB, ICC, E
Primary Accession	P05111
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	4E2
Isotype	IgG1
Calculated MW	39670
Description	Inhibins are peptide hormones produced by the granulosa cells in female follicles and by Sertoli cells in the male seminiferous tubules. They are selectively expressed by cells of sex cord stromal derivation, and inhibit the secretion of follitropin by the pituitary gland. Inhibins are also involved in regulating diverse 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. Inhibins appear to oppose the functions of activins, as inhibins and activins inhibit and activate, respectively, the secretion of follitropin by the pituitary gland. Inhibin has 2 subunits (alpha and beta) that are coded by separate genes. The alpha subunit determines whether inhibin or activin will be produced. The alpha subunit remains constant, such that the various types of inhibin are defined by the beta subunit (a,b,c,d). Inhibin A is a dimer of alpha and beta A. Inhibin B is a dimer of alpha and beta B. Proteolytic processing yields a number of inhibin alpha bioactive forms: the 20/23 kDa forms consist solely of the mature alpha chain, the 26/29 kDa forms consist of the most N terminal propeptide linked through a disulfide bond to the mature alpha chain, and the 50/53 kDa forms encompass the entire proprotein. Each type can be furthermore either mono or diglycosylated, causing the mass difference.
Immunogen	Purified recombinant fragment of human INHA expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	3623
Other Names	Inhibin alpha chain, INHA
Dilution	WB~~1/500 - 1/2000 ICC~~N/A E~~N/A

Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	INHA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

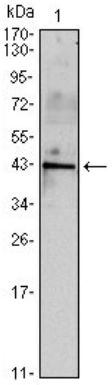
Name	INHA
Function	Inhibins and activins inhibit and activate, respectively, the secretion of follitropin by the pituitary gland. Inhibins/activins are involved in regulating a number of diverse functions such as hypothalamic and pituitary hormone secretion, gonadal hormone secretion, germ cell development and maturation, erythroid differentiation, insulin secretion, nerve cell survival, embryonic axial development or bone growth, depending on their subunit composition. Inhibins appear to oppose the functions of activins. Inhibin B is a dimer of alpha and beta-B that plays a crucial role in the regulation of the reproductive system by inhibiting the secretion of follicle-stimulating hormone (FSH) from the anterior pituitary gland. Thereby, maintains reproductive homeostasis in both males and females. Acts as a more potent suppressor of FSH release than inhibin A (By similarity). Functions as competitive receptor antagonist binding activin type II receptors with high affinity in the presence of the TGF-beta type III coreceptor/TGFBR3L (PubMed:34910520).
Cellular Location	Secreted {ECO:0000250|UniProtKB:P17490}.
Tissue Location	Originally found in ovary (granulosa cells) and testis (Sertoli cells), but widely distributed in many tissues including brain and placenta. In adrenal cortex expression is limited to the zona reticularis and the innermost zona fasciculata in the normal gland, extending centripetally into the zona fasciculata in hyperplasia. Also found in adrenocortical tumors. Also expressed in prostate epithelium of benign prostatic hyperplasia, in regions of basal cell hyperplasia and in nonmalignant regions of high grade prostate cancer. Only circulating inhibin B is found in male, whereas circulating inhibins A and B are found in female

References

1. Cancer Epidemiol Biomarkers Prev. 2008 Dec;17(12):3567-72. 2. Acta Histochem. 2009;111(4):360-5. 3. Hum Reprod. 2009 Aug;24(8):2023-8.

Images

Figure 1: Western blot analysis using INHA mouse mAb against mouse spermary (1) tissues lysate.



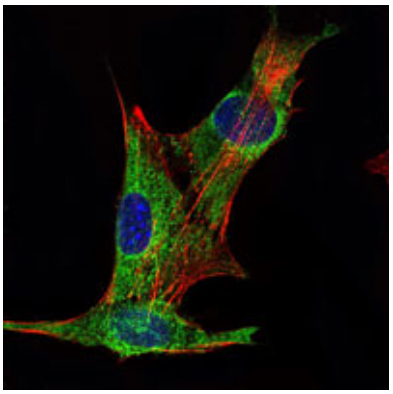


Figure 2: Immunofluorescence analysis of PANC-1 cells using INHA mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.