

INHA (Inhibin alpha) Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1084a

Product Information

Application	IHC, ICC, E
Primary Accession	P05111
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4A2
Isotype	IgG1
Calculated MW	39670
Description	INHA (A-inhibin subunit precursor, inhibin alpha subunit), also called inhibin (alpha) ,which is located on chromosome 2q33-q36. Inhibin is a gonadal protein that preferentially suppresses the secretion of pituitary follicle-stimulating hormone (FSH). Inhibin comprises of two subunits,Inhibin A and B. Inhibin has been shown to regulate gonadal stromal cell proliferation negatively and to have tumor suppressor activity. In addition, serum levels of inhibin have been shown to reflect the size of granulosa cell tumors and can therefore be used as a marker for primary as well as recurrent disease. In addition to their role in endocrine feedback in the reproductive sytem, inhibins subserve local regulatory roles in numerous extragonadal tissues, including brain, adrenal,bone marrow, placenta, and most notably anterior pituitary. Inhibin alpha subunit gene expression is down regulated in human prostate cancer, suggesting a tumor suppressive role.
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	IHC~~1/200 - 1/1000 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 (Inhibin alpha) 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/TGFB3L (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. Mayo, K.E., Cerelli, G.M., Spiess, J., et al. 1986. Proc. Natl. Acad. Sci. USA 83: 5849-5853. 2. GM LM, WF Crowley, Jr, AL Schneyer.1995.J. Clin. Endocrinol. Metab., Oct . 80:3043-3049. 3. Knight, P.G. 1996.Front. Neuroendocrinol. 17: 476-509. 4. PA Fahy, CA Wilson, AJ Beard, et al. 1995.J Endocrinol Nov.147:271-283.

Images

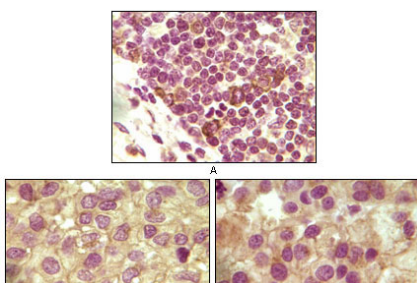


Figure 1: Immunohistochemical analysis of paraffin-embedded human lymphoid (A), ovary tumor (B) and testicle tumor (C) tissues using INHA mouse mAb with DAB staining.

Figure 2: Confocal immunofluorescence analysis of Hela cells using INHA mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

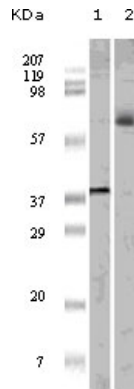
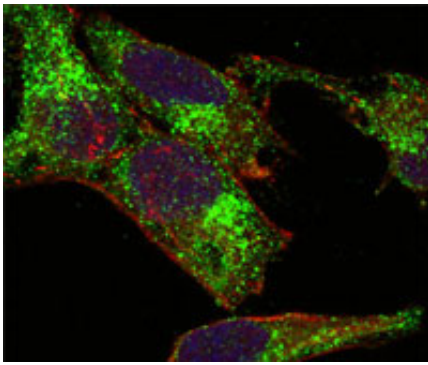


Figure 1: Western blot analysis using ELK1 mouse mAb against truncated ELK1 recombinant protein (1) and K562 cell lysate (2).

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