

Active Recombinant Human INHBA

Cat. No. INHBA-141H Lot. No. (See product label)

SPECIFICATION

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| Product Overview | Active form Activin-A Human Recombinant produced in e.coli is a homodimeric, non-glycosylated, polypeptide chain containing 2 x 117 amino acids and having a molecular weight of 26.2kDa. The Active form Activin-A is purified by standard chromatographic techniques. |
| Species | Human |
| Source | E.coli |
| Description | The inhibin beta A subunit joins the alpha subunit to form a pituitary FSH secretion inhibitor. 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. Because expression in gonadal and various extragonadal tissues may vary severalfold in a tissue-specific fashion, it is proposed that inhibin may be both a growth/differentiation factor and a hormone. Furthermore, the beta A subunit forms a homodimer, activin A, and also joins with a beta B subunit to form a heterodimer, activin AB, both of which stimulate FSH secretion. Finally, it has been shown that the beta A subunit mRNA is identical to the erythroid differentiation factor subunit mRNA and that only one gene for this mRNA exists in the human genome. |
| Form | Lyophilized freeze dried powder. Human Activin-A was lyophilized from a concentrated 1mg/ml protein solution containing 0.02% TFA. |

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| Bio-activity | Biological activity is assessed by the ability to induce cytotoxicity of MPC-11 cells and was found to be 1-1.5 ng/ml corresponding to a specific activity of 666,667-1,000,000 Units/mg. |
| Molecular Mass | 26.2kDa. |
| AA Sequence | MGLECDGKVN ICCKKQFFVS FKDIGWNDWI IAPSGYHANY CECECP SHIA GTSGSSLSFH STVINHYRMR GHSPFANLKS CCVPTKLRPM SMLYDDGQN IHKDIQNM VEECGCS. |
| Purity | Greater than 95% as observed by SDS-PAGE. |
| Stability | Lyophilized Activin-A although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Activin-A should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles. |
| Reconstitution | Human INHBA protein should be reconstituted in distilled pyrogen free water to a concentration of 100ug /ml which can then be further diluted to other aqueous solutions. |

GENE INFORMATION

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| Gene Name | INHBA inhibin, beta A [Homo sapiens (human)] |
| Official Symbol | INHBA |
| Synonyms | INHBA; inhibin, beta A; EDF; FRP; Inhibin, beta-1; OTTHUMP00000207260; FSH-releasing protein; erythroid differentiation factor; follicle-stimulating hormone-releasing protein; inhibin, beta A (activin A, activin AB alpha polypeptide); Activin beta-A chain; |

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| | Erythroid differentiation protein; FSH-releasing protein |
| Gene ID | 3624 |
| mRNA Refseq | NM_002192 |
| Protein Refseq | NP_002183 |
| MIM | 147290 |
| UniProt ID | P08476 |
| Chromosome Location | 7p15-p13 |
| Pathway | ALK1 signaling events; Cardiac Progenitor Differentiation; Metabolism of proteins |
| Function | cytokine activity; growth factor activity; identical protein binding |

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