

INHBB Protein, Human (HEK293, His)

Cat. No.:	HY-P73242
Synonyms:	Activin beta-B chain; INHBB; Inhibin beta B chain
Species:	Human
Source:	HEK293
Accession:	P09529/NP_002184.2 (S29-A407)
Gene ID:	3625
Molecular Weight:	Approximately 17.52&40.53&53.75 kDa

PROPERTIES

AA Sequence	<pre> S P T P P P T P A A P P P P P P P G S P G G S Q D T C T S C G G F R R P E E L G R V D G D F L E A V K R H I L S R L Q M R G R P N I T H A V P K A A M V T A L R K L H A G K V R E D G R V E I P H L D G H A S P G A D G Q E R V S E I I S F A E T D G L A S S R V R L Y F F I S N E G N Q N L F V V Q A S L W L Y L K L L P Y V L E K G S R R K V R V K V Y F Q E Q G H G D R W N M V E K R V D L K R S G W H T F P L T E A I Q A L F E R G E R R L N L D V Q C D S C Q E L A V V P V F V D P G E E S H R P F V V V Q A R L G D S R H R I R K R G L E C D G R T N L C C R Q Q F F I D F R L I G W N D W I I A P T G Y Y G N Y C E G S C P A Y L A G V P G S A S S F H T A V V N Q Y R M R G L N P G T V N S C C I P T K L S T M S M L Y F D D E Y N I V K R D V P N M I V E E C G C A </pre>
Biological Activity	<p>1. Measured in a cell proliferation assay using SH-SY5Y human neuroblastoma cells. The ED₅₀ this effect is 0.6762 ng/mL, corresponding to a specific activity is 1.48×10⁶ units/mg. (Note: Protein mainly exists in propeptide form, which means it doesn't have the biological activity of Activin B.)</p> <p>2. Measured by its binding ability in a functional ELISA. Immobilized human INHBB-His at 10 µg/mL (100 µl/well) can bind biotinylated mouse FLRG-His with a linear range of 0.031-0.125 µg/mL.</p> <p>3. Immobilized Human INHBB at 10 µg/mL (100 µL/well) can bind Biotinylated FLRG protein. The ED₅₀ for this effect is 156.2 ng/mL.</p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

INHBB protein assumes a crucial role in the intricate orchestration of pituitary gland function, contributing to the dual regulatory dynamics of inhibiting and activating follitropin secretion alongside activins. The far-reaching impact of inhibins and activins, with INHBB as a pivotal component, extends across a spectrum of physiological processes, including hypothalamic and pituitary hormone secretion, gonadal hormone secretion, germ cell development and maturation, erythroid differentiation, insulin secretion, nerve cell survival, embryonic axial development, and bone growth, contingent upon their distinctive subunit compositions. Notably, inhibins, exemplified by Inhibin A and Inhibin B, emerge as counterparts opposing the functions of activins. Structurally, INHBB exists in a dimeric configuration, intricately linked by one or more disulfide bonds, representing a homodimer of beta-B subunits. The nuanced diversity within activins, including Activin A, Activin B, and Activin AB, further underscores their unique subunit compositions and their interactions with regulatory proteins such as FST and FSTL3. This intricate interplay highlights the central role of INHBB in fine-tuning a comprehensive regulatory network governing diverse physiological functions.

REFERENCES

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