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Produktinformation

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- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION

INHBE (human, recombinant)

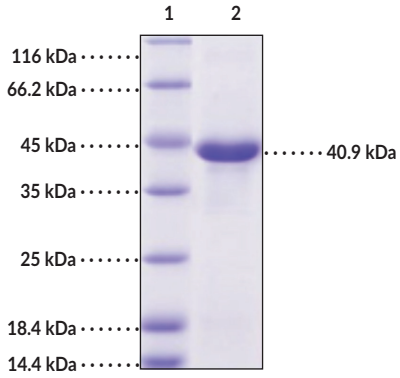
Item No. 38059

Overview and Properties

Synonyms: Activin β-E Chain, Inhibin β-E Chain, Inhibin Subunit β E
Source: Recombinant N-terminal human IgG1 Fc-tagged INHBE expressed in HEK293 cells
Amino Acids: 237-350
Uniprot No.: P58166
Molecular Weight: 40.9 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥90% estimated by SDS-PAGE
Supplied in: Lyophilized from sterile PBS, pH 7.4, with 5% trehalose, 5% mannitol, and 0.01% Tween 80
Endotoxin Testing: <1.0 EU/µg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: INHBE (human, recombinant)

SDS-PAGE Analysis of INHBE (human, recombinant). This protein has a calculated molecular weight of 40.9 kDa.

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PRODUCT INFORMATION

Description

Inhibin beta E chain (INHBE) is a member of the TGF-β superfamily.[1] *INHBE* encodes a 350-amino acid pre-protein, which is proteolytically cleaved at Thr237 to release the mature INHBE peptide, and is a secreted protein mainly expressed in the liver. It exists as a homodimer, also known as activin E, or forms heterodimers with other inhibin beta chains such as INHBC.[2] INHBE is a hepatokine that is involved in hepatocyte viability, thermogenesis, and insulin sensitivity and binds to follistatin (Item No. 31839).[1-3] Overexpression of *INHBE* induces apoptosis in hepatocytes and INHBE-containing conditioned medium induces expression of genes involved in adipocyte differentiation, which can be blocked by the activin receptor-like kinase (ALK) inhibitor SB-431542 (Item No. 13031).[2,3] Hepatic expression of human *INHBE* decreases plasma glucose levels and increases body temperature in mice.[3] Loss-of-function mutations in *INHBE* are associated with favorable body fat distribution and a decreased risk of developing type 2 diabetes.[4] Increased tumor levels of *INHBE* positively correlate with increasing tumor grade and negatively correlate with poor overall survival in patients with clear-cell renal cell carcinoma (ccRCC).[5] Cayman's INHBE (human, recombinant) protein is a disulfide-linked homodimer. The reduced monomer, composed of INHBE (amino acids 237-350) fused to human IgG1 Fc at its N-terminus, consists of 374 amino acids and has a calculated molecular weight of 40.9 kDa.

References

1. Hasimoto, O., Tsuchida, K., Ushiro, Y., *et al.* cDNA cloning and expression of human activin βE subunit. *Mol. Cell. Endocrinol.* **194(1-2),** 117-122 (2002).
2. Wada, W., Medina, J.J., Kuwano, H., *et al.* Comparison of the function of the β_C and β_E subunits of activin in AML12 hepatocytes. *Endocr. J.* **52(2),** 169-175 (2005).
3. Hasimoto, O., Funaba, M., Sekiyama, K., *et al.* Activin E controls energy homeostasis in both brown and white adipose tissues as a hepatokine. *Cell Rep.* **25(5),** 1193-1203 (2018).
4. Akbari, P., Sosina, O.A., Bovijn, J., *et al.* Multiancestry exome sequencing reveals *INHBE* mutations associated with favorable fat distribution and protection from diabetes. *Nat. Commun.* **13(1),** 4844 (2022).
5. Xu, Z.-B., Gan, M.-F., Yu, H.-Y., *et al.* The significance of INHBE expression in the cancer cells of clear-cell renal cell carcinoma. *Urol. Int.* **106(4),** 376-386 (2022).

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