

DESCRIPTION

Species Reactivity	Human
Specificity	Detects a synthetic peptide specific for human INHBE around amino acid 200 in Direct ELISA
Source	Monoclonal Mouse IgG _{2B} Clone # 1111910
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Synthetic peptide Accession # P58166
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

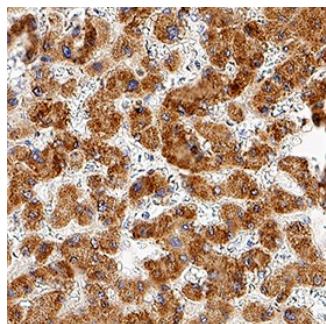
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunohistochemistry	3-25 µg/mL	Immersion fixed paraffin-embedded sections of human liver

DATA

Immunohistochemistry



Detection of INHBE in Human Liver. INHBE was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human INHBE Monoclonal Antibody (Catalog # MAB11746) at 5 µg/ml overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # [VCTS021](#)). Tissue was stained using the HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # [HAF007](#)) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Inhibin beta E (INHBE) is a member of the transforming growth factor-beta (TGF- β) superfamily of cytokines, with a molecular weight of approximately 40 kDa. INHBE plays critical roles in the regulation of diverse physiological processes, including cell growth, differentiation, and metabolism. It is a key component of the activin signaling pathway, where it dimerizes with other β -subunits to form bioactive ligands involved in endocrine regulation. INHBE is primarily expressed in hepatic and reproductive tissues and has been implicated in metabolic homeostasis, particularly in energy expenditure and glucose metabolism. Dysregulation of INHBE expression has been linked to pathophysiological conditions such as obesity, insulin resistance, and liver disease. Furthermore, INHBE has gained attention for its tumor-suppressive role in certain cancers, suggesting its potential as a regulator of cell proliferation and apoptosis. Its specificity and involvement in metabolic and oncogenic pathways highlight INHBE as a promising biomarker and a potential target for therapeutic strategies.

References:

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2. Hashimoto O, Funaba M, Sekiyama K, Doi S, Shindo D, Satoh R, Itoi H, Oiwa H, Morita M, Suzuki C, Sugiyama M, Yamakawa N, Takada H, Matsumura S, Inoue K, Oyadomari S, Sugino H, Kurisaki A. Activin E Controls Energy Homeostasis in Both Brown and White Adipose Tissues as a Hepatokine. *Cell Rep.* 2018 Oct 30;25(5):1193-1203. doi: 10.1016/j.celrep.2018.10.008. PMID: 30380411.
3. Griffin JD, Buxton JM, Culver JA, Barnes R, Jordan EA, White AR, Flaherty SE, Bernardo B, Ross T, Bence KK, Birnbaum MJ. Hepatic Activin E mediates liver-adipose inter-organ communication, suppressing adipose lipolysis in response to elevated serum fatty acids. *Mol Metab.* 2023 Dec;78:101830. doi: 10.1016/j.molmet.2023.101830. Epub 2023 Oct 28. PMID: 38787338; PMCID: PMC10656223.