

Betacellulin/BTC Protein, Mouse (N-His)

Cat. No.:	HY-P7329
Synonyms:	rMuBetacellulin; BTC
Species:	Mouse
Source:	E. coli
Accession:	Q05928 (D32-Y111)
Gene ID:	12223
Molecular Weight:	12-16 kDa

PROPERTIES

AA Sequence	D G N T T R T P E T N G S L C G A P G E N C T G T T P R Q K V K T H F S R C P K Q Y K H Y C I H G R C R F V V D E Q T P S C I C E K G Y F G A R C E R V D L F Y
Biological Activity	Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED ₅₀ this effect is ≤0.9548 ng/mL, corresponding to a specific activity is ≥1.047×10 ⁶ units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, 200 mM arginine, pH 8.0 or PBS, 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	Betacellulin (BTC), a member of the epidermal growth factor (EGF) family, induces differentiation of pancreatic β-cells and promotes regeneration of β-cells in experimental diabetes. BTC stimulates DNA synthesis in fibroblasts and vascular smooth muscle cells. BTC plays a role in regulating growth and/or differentiation of endocrine precursor cells of the fetal pancreas. BTC is found to convert amylase-secreting pancreatic AR42J cells into insulin-producing cells and to have a mitogenic effect in human undifferentiated pancreatic epithelial cells ^[1] .
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REFERENCES

[1]. Li L, et al. Betacellulin improves glucose metabolism by promoting conversion of intraislet precursor cells to beta-cells in streptozotocin-treated mice. Am J Physiol Endocrinol Metab. 2003 Sep;285(3):E577-83.

Caution: Product has not been fully validated for medical applications. For research use only.

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