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Antibodies | ELISA kits | Proteins

Catalog Number: HZ-1339

Data Sheet

HumanKine® Betacellulin (Recombinant Human)

Animal Component-Free	Human cell expressed	Tag-Free	Endotoxin Free

Product Description

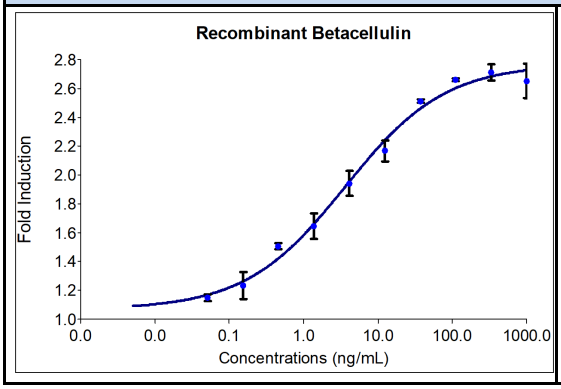
Betacellulin (BTC) is a member of the epidermal growth factor (EGF) family of proteins, which play a critical role in cell growth, differentiation, and repair. It is initially synthesized as a membrane-bound precursor, later cleaved to release its active soluble form (PMID 27635238). BTC is known to bind to and activate the ErbB receptor family, particularly ErbB1 (also known as EGFR) and ErbB4, triggering a cascade of intracellular signaling pathways that regulate cell proliferation and survival (PMID 24440602). BTC is highly expressed in various tissues, including the pancreas, where it promotes the growth and regeneration of insulin-producing beta cells, suggesting a potential role in diabetes treatment (PMID 33553143). Due to its wide-ranging effects, betacellulin has been studied for therapeutic applications in regenerative medicine and cancer (PMID 31678994, 12704384).

Alternative Names	BTC
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived Betacellulin protein

Specifications

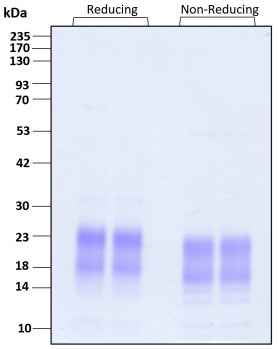
Test	Method	Specification
Activity	Dose-Dependent Proliferation of the NIH3T3 cell line in defined media	1 - 10 ng/mL in NIH 3T3 cells in defined media
Molecular Mass	SDS-PAGE	12 to 25 kDa reduced, 11 to 23 kDa non-reduced, monomer, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/μg

Activity Data



Recombinant human Betacellulin (HZ-1339) stimulates dose-dependent proliferation of the NIH/3T3 mouse fibroblast cell line. Viable cell number was quantitatively assessed by Prestoblue Cell Viability Reagent. NIH/3T3 cells were serum starved during treatment with increasing concentrations of recombinant human Betacellulin for 72hrs in defined medium. The EC50

SDS-PAGE



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Preparation	
Shipping Temperature	ambient temperature
Formulation	1 x PBS, See Certificate of Analysis for details
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein to 0.2 mg/mL in sterile 1x PBS pH 7.4. Gently swirl or tap vial to mix.

	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
Stability and Storage	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
	Avoid repeated freeze-thaw cycles.		

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