

**Recombinant Human Betacellulin
(rhBTC)
Catalog Number: 107-12**

Description	Betacellulin (BTC) is a member of the epidermal growth factor (EGF) family of cytokines and appears to play a role in the growth and differentiation of pancreatic beta cells. BTC and Activin A synergistically can convert AR42J rat pancreatic cells from amylase-secreting cells to insulin-producing cells. Human BTC is initially synthesized as a glycosylated transmembrane precursor protein, which is then proteolytically cleaved to generate its mature form. At the amino acid sequence level, human mature BTC protein exhibits 80% identity with mouse BTC protein. BTC is expressed in most tissues including kidney, uterus, liver and pancreas. It is also present in bodily fluids, such as in serum, milk, and colostrum.
Synonyms	Probetacellulin
AA Sequence	DGNSTRSPET NGLLCGDPEE NCAATTTQSK RKGHFSRCPK QYKHYCIKGR CRFVVAEQTP SCVCDEGYIG ARCERVDLFY
Source	<i>Escherichia coli</i>
Molecular Weight	Approximately 9 kDa monomeric protein containing 80 amino acids, comprising the mature EGF homologous portion of BTC.
Purity	>98% by SDS-PAGE and HPLC analyses.
Biological Activity	ED ₅₀ is <0.05ng/ml, corresponding to a specific activity of $\geq 2 \times 10^7$ units/mg, as determined by the proliferation of murine Balb/3T3 cells
Physical Appearance	White lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated (1mg/ml) solution in PBS, pH 7.4.
Endotoxin	< 1EU/ μ g of growth factor as determined by LAL method.
Reconstitution	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
Storage	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
Usage	This product is for research use only. It is not approved for use in humans, animals, or <i>in vitro</i> diagnostic procedures.