

Recombinant Human Betacellulin

Catalog # FL042

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 98% by SDS-PAGE or HPLC.
Endotoxin	< 0.01 EU/ μ g of rHuBetacellulin protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Human
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 0.05 ng/ml, corresponding to a specific activity of $\geq 2.0 \times 10^7$ IU/mg.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 20 mM PB, with 150 mM NaCl, pH 7.2.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Accession #	P35070 Asp32-Tyr111
Amino acid sequence	DGNSTRSPETNGLLCGDPENCAATTTQSKRKGHF SRCPKQYKHYCIKGRFCRFVVAEQTPSCVCDEGYIGARCERVDLFY
Molecular weight	Approximately 9.0 kDa, a single non-glycosylated polypeptide chain containing 80 amino acids.
Synonyms	BTC
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$. Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Human Betacellulin is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Betacellulin (BTC) is a member of the EGF family of cytokines that also includes EGF, TGF- α , Amphiregulin, HB-EGF, Epiregulin, Tomoregulin and the Neuregulin. It is expressed in most tissues including kidney, uterus, liver and pancreas. BTC also presents in body fluids, including serum, milk, and colostrum. At the amino acid sequence level, human mature BTC protein exhibits 80% identity with mouse BTC protein. The protein binds to EGFR, ERBB4 and other EGF receptor family members and acts as a potent mitogen for retinal pigment epithelial cells and vascular smooth muscle cells. Recombinant Human Betacellulin is a 9.0k Da globular protein containing 80 amino acid residues, which comprises the mature EGF homologous portion of the Betacellulin protein.

