

# Recombinant human Betacellulin/BTC Protein

Catalog Number: ATGP4016

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

32-111aa

### UniProt No.

P35070

### NCBI Accession No.

NP\_001720

### Alternative Names

Betacellulin, Probetacellulin, BTC, Betacellulin isoform 1

## PRODUCT SPECIFICATION

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### Molecular Weight

9.8kDa (86aa)

### Concentration

0.25mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol.

### Purity

> 95% by SDS - PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED50 range  $\leq$  0.5 ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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## Description

BTC, also known as Betacellulin, is a member of epidermal growth factor receptor family and functions as a ligand for the epidermal growth factor receptor (EGFR). As the role a EGFR, betacellulin is manifested by different form of muscles and tissues, it also has a great effect of nitrogen that is used for retinal pigment epithelial cells and vascular smooth muscle cells. While many studies attest a role for betacellulin in the differentiation of pancreatic  $\beta$ -cells, the last decade witnessed the association of betacellulin with many additional biological processes, ranging from reproduction to the control of neural stem cells. As a typical EGFR ligand, betacellulin is expressed by a variety of cell types and tissues, and the soluble growth factor is proteolytically cleaved from a larger membrane-anchored precursor. It stimulates the proliferation of retinal pigment epithelial and vascular smooth muscle cells but did not stimulate the growth of several other cell types, such as endothelial cells and fetal lung fibroblasts. Recombinant human Betacellulin, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

DGNSTRSPET NLLCGDPPEE NCAATTTQSK RKGHFSRCPK QYKHYCIKGR CRFVVAEQTP SCVCDEGYIG ARCERVDLFY <HHHHHH>

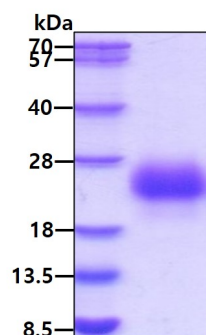
## General References

Saito T., et al, (2004) Endocrinology. 145(9):4232-4243.

Kim HS., et al, (2003) FASEB Journal. 17(2):318-320.

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain

## Biological Activity

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Human BTC stimulates cell proliferation of the Balb/3T3 mouse embryonic fibroblast cells. The ED50 range  $\leq 0.5$  ng/ml.

