

# Recombinant Human Betacellulin (rh BTC)

**Synonyms:** none

**Introduction:** BTC is a potent mitogen for retinal pigment epithelial cells and vascular smooth muscle cells. The effects of betacellulin are probably mediated by the egf receptor and other related receptors.

**Description:** Recombinant human Betacellulin produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 80 amino acids and having a molecular mass of 9 kDa. Betacellulin Human Recombinant is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** The Betacellulin was lyophilized after extensive dialysis against 20mM phosphate buffer pH-7.4. The samples of 1µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rh BTC in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rh BTC although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh BTC should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 97.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

**Amino Acid Sequence:** The sequence of the first five N-terminal amino acids was determined and was found to be Asp-Gly-Asn-Ser-Thr.

**Biological Activity:** The ED<sub>50</sub>, calculated by the dose-dependant proliferation of murine BALB/C 3T3 cells (measured by <sup>3</sup>H-thymidine uptake) is < 0.05 ng/ml. corresponding to a Specific Activity of >2.0×10<sup>7</sup> IU/mg.

**Protein content:** Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.69 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of BTC as a Reference Standard.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	11344130
<i>medium</i>	20 µg	Cat.N°	11344134

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