

## Betacellulin, Mouse

**Cat. No.:** Z03192-1

**Size:** 1.0 mg

**Synonyms:** BTC

### Description:

Betacellulin is a pleiotropic cytokine that belongs to the Epidermal Growth Factor (EGF) family. Like other members of the EGF family, Betacellulin possesses a conserved sequence of 35-40 amino acids which contain 3 disulfide bonds formed by 6 cysteines. Betacellulin is unique in the EGF family since it can bind and activate a broad spectrum of ErbB receptors. Functionally, Betacellulin plays a role in the development of the pancreas by activating signaling pathways beneficial for the function, survival and regeneration of pancreatic  $\beta$ -cells. Additionally, Betacellulin has potential angiogenic activities and is important for the growth, development and repair of certain tissues.

Recombinant mouse Betacellulin (rmBetacellulin) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 81 amino acids. A fully biologically active molecule, rmBetacellulin has a molecular mass of 9.2 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Amino Acid Sequence:

```
00001 MDGNTTRTPE TNGSLCGAPG ENCTGTTTRQ KVKTHFSRCP
00041 KQYKHYCIHG RCRFVVDEQT PSCICEKGYF GARCERVDLF
00081 Y
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**Source:** *E. coli*

**Species:** Mouse

**Biological Activity:** ED<sub>50</sub> <0.5ng/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of >2 × 10<sup>6</sup> units/mg.

**Molecular Weight:** 9.2 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against 50mM Tris, 300mM NaCl, pH9.0.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100  $\mu$ g/mL.

**Purity:** > 95% by SDS-PAGE analysis.

**Endotoxin Level:** < 0.2 EU/ $\mu$ g, determined by LAL method.

**Storage:** Lyophilized recombinant mouse Betacellulin (rmBetacellulin) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmBetacellulin remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.