

Betacellulin, Mouse

Cat. No.: Z03192-10

Size: 10.0 ug

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 β -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
```

Source: *E. coli*

Species: Mouse

Biological Activity: ED₅₀ <0.5ng/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of >2 × 10⁶ 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 ddH₂O at 100 μ g/mL.

Purity: > 95% by SDS-PAGE analysis.

Endotoxin Level: < 0.2 EU/ μ 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.