Recombinant Human Betacellulin/BTC Protein

Catalog No.: RP01700

Sequence Information

Species
Human

Gene ID
685

Swiss Prot
P35070

Tags
C-hFC-6His

Synonyms
BTC;Betacellulin

Product Information

Source
HEK293 cells

Purification
≥ 90 % as determined by SDS-PAGE.

Calculated MW
34.94 kDa

Observed MW
45-60 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Betacellulin(BTC) is a member of the epidermal growth factor (EGF) family. These soluble proteins are ligands for one or more of the four receptor tyrosine kinases encoded by the ErbB gene family (ErbB-1/epidermal growth factor receptor (EGFR), neu/ErbB-2/HER2, ErbB-3/HER3 and ErbB-4/HER4). Betacellulin is a 32-kilodalton glycoprotein that appears to be processed from a larger transmembrane precursor by proteolytic cleavage. This protein is a ligand for the EGF receptor. BTC is a polymer of about 62-111 amino acid residues. Secondary Structure: 6% helical (1 helices; 3 residues)36% beta sheet (5 strands; 18 residues). BTC was originally identified as a growth-promoting factor in mouse pancreatic β-cell carcinoma cell line and has since been identified in humans. It plays a role in the growth and development of the neonate and/or mammary gland function. Betacellulin is a potent mitogen for retinal pigment epithelial cells and vascular smooth muscle cells.

Basic Information

Description
Recombinant Human Betacellulin/BTC Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Asp32-Tyr111) fused with hFC-6His tag at the C-terminus.

Activity
Measured in a cell proliferation assay using BALB/3T3 mouse fibroblasts. The ED_{50} for this effect is 1.02-4.06 ng/mL, corresponding to a specific activity of 2.46×10^5~9.80×10^5 units/mg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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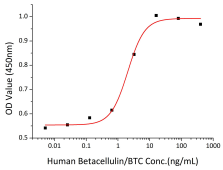
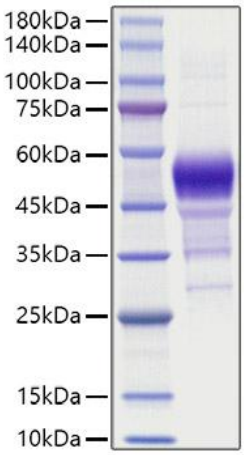
For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



Recombinant Human Betacellulin/BTC stimulates cell proliferation assay using BALB /3T3 mouse fibroblasts. The ED_{50} for this effect is 1.02-4.06 ng/mL, corresponding to a specific activity of 2.46×10^5~9.80×10^5 units/mg.



Recombinant Human Betacellulin/BTC Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.