Active Recombinant Bovine Betacellulin

Cat. No. BTC-320B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Bovine Betacellulin was produced in*E.Coli.*
Species	Bovine
Source	E.coli
Description	Bovine Betacellulin (BTC), a member of the EGF family, is an 80 amino acid heparin-binding protein. Like other members of the EGF family, it is synthesized as a transmembrane precursor. The soluble cytokine, containing one EGF structural motif, is released by proteolytic cleavage. BTC can bind to the EGF receptor (ErbB-1) which then dimerizes with another member of the ErbB receptor family to signal through the tyrosine kinase pathway. BTC is a potent mitogen for Balb/c 3T3 fibroblasts, retinal pigment epithelial cells and vascular smooth muscle cells and is the only member of the EGF family to stimulate insulin secretion in pancreatic b cells.
Purity	By N-terminal sequencing: >95% bovine betacellulin, comprising an equal mixture of [Gly1]BTC and Des(1-4)BTC.
Molecular Weight	Theoretical: 8995 daltons. By Mass Spectrometry the product is 50% [Gly1]BTC (9052 daltons) and 50% Des(1-4)BTC (8709 daltons).
N-terminal Sequence Analysis	5 residues >95% bovine betacellulin, comprising an equal mixture of [Gly1]BTC and Des(1-4)BTC.
Activity	Cell growth bioassay in Balb/c 3T3 fibroblasts: ED_{50}<10 ng/ml.

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Endotoxin	<0.1 EU/μg.
State And Appearance	Lyophilized white powder. Dried from 0.05 M acetic acid, 0.05% (v/v) trifluoroacetic acid and stored under dry nitrogen at a slight vacuum (-25 kPa).
Storage	At least 2 years at 2 – 4°C(lyophilized).

GENE INFORMATION

Gene Name	BTC betacellulin [Bos taurus]
Synonyms	Betacellulin; BTC
Gene ID	280737
mRNA Refseq	NM_173896
Protein Refseq	NP_776321
UniProt ID	Q9TTC5
Chromosome Location	6
Pathway	ErbB signaling pathway
Function	Growth factor activity

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