

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects Betacellulin/BTC in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Androgen R, rhBetacellulin, rhEGF, rhHB-EGF, rhHRG-α, rhHRG-β1, rhTGF-α, recombinant mouse (rm) Epigen, or rmE
Source	Monoclonal Rat IgG _{2A} Clone # 197415
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse Betacellulin/BTC Asp32-Gln118 Accession # Q05928
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Betacellulin (BTC) is a member of the EGF family of cytokines which includes EGF, TGF-α, amphiregulin, HB-EGF, epiregulin, tomoregulin and the neuregulins. All EGF family members are synthesized as type I transmembrane precursor proteins containing one or more EGF-like domains in their extracellular region (1). BTC, a heparin-binding protein, was originally isolated from the conditioned media of mouse pancreatic beta tumor cells as a 32 kDa glycoprotein (2). The mouse BTC cDNA encodes a 177 amino acid (aa) residue precursor with a 31 aa signal peptide, an 87 aa residue extracellular region containing one EGF-like domain, a 21 aa transmembrane domain and a 38 aa cytoplasmic domain. Soluble BTC is released from the transmembrane precursor by proteolytic processing (3). Mouse BTC shares 93% and 79% aa sequence identity with rat and human BTC, respectively (1). The mouse BTC gene is tightly linked to that of amphiregulin on mouse chromosome 5 (4). BTC is expressed in most tissues including kidney, uterus, liver and pancreas. It is also present in body fluids including serum, milk and colostrum (5). BTC promotes pancreatic beta-cell growth and differentiation (6) and is a potent mitogen for retinal pigment epithelial cells, vascular smooth muscle cells and fibroblasts (1). The effects of BTC is mediated by binding to ErbB1 and ErbB4 homodimers as well as ErbB heterodimers (1).

PRODUCT SPECIFIC NOTICES

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