Datasheet for ABIN1889364

Betacellulin ELISA Kit

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Overview

Quantity:	96 tests
Target:	Betacellulin (BTC)
Binding Specificity:	AA 32-111
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	7.8-500 pg/mL
Minimum Detection Limit:	7.8 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse Betacellulin/BTC
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: D32-Y111
Specificity:	Expression system for standard: E.coli Immunogen sequence: D32-Y111
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	Betacellulin (BTC)
Alternative Name:	BTC (BTC Products)
Background:	Protein Function: Growth factor that binds to EGFR, ERBB4 and other EGF receptor family members. Potent mitogen for retinal pigment epithelial cells and vascular smooth muscle cells. . Background: Betacellulin, also known as BTC is a protein that in humans is encoded by the BTC gene. This gene is mapped to 4q13.3. The protein encoded by this gene is a member of the EGF family of growth factors. It is synthesized primarily as a transmembrane precursor, which is then processed to mature molecule by proteolytic events. This protein is a ligand for the EGF receptor. It is the growth factor that binds to EGFR, ERBB4 and other EGF receptor family members. This protein is a potent mitogen for retinal pigment epithelial cells and vascular smooth muscle cells. Synonyms: Probetacellulin,Betacellulin,BTC,Btc,Bcn, Full Gene Name: Probetacellulin Cellular Localisation: Betacellulin: Secreted, extracellular space.
Gene ID:	12223
UniProt:	Q05928
Pathways:	RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway

Application Details

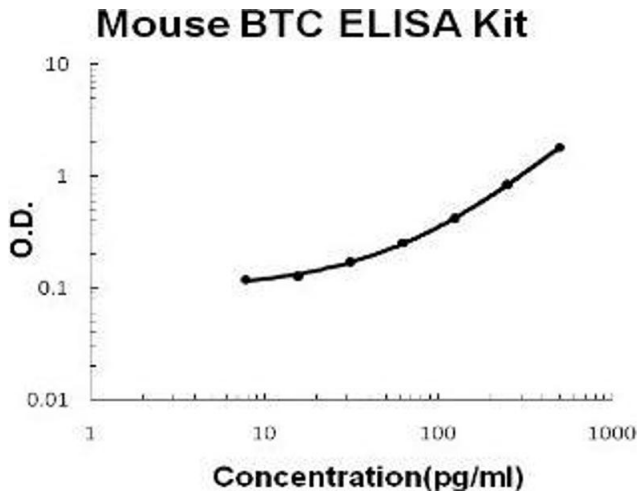
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Found in several mouse tissues including kidney, uterus and liver, as well as in beta tumor cell line and MCF-7 cells. It is not detected in the brain.

Application Details

Plate:	Pre-coated
Protocol:	mouse BTC ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for BTC has been precoated onto 96-well plates. Standards(E.coli, D32-Y111) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for BTC is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse BTC amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.3pg/mL, 15.6pg/mL, 7.8pg/mL mouse BTC standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each mouse BTC standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 28.6, Standard deviation: 1.40, CV(%): 4.9 • Sample 2: n=16, Mean(pg/ml): 69.4, Standard deviation: 3.61, CV(%): 5.2 • Sample 3: n=16, Mean(pg/ml): 279, Standard deviation: 15.90, CV(%): 5.7, • Sample 1: n=24, Mean(pg/ml): 29.3, Standard deviation: 1.70, CV(%): 5.8 • Sample 2: n=24, Mean(pg/ml): 69.8, Standard deviation: 4.40, CV(%): 6.3 • Sample 3: n=24, Mean(pg/ml): 285, Standard deviation: 23.09, CV(%): 8.1
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Mouse Betacellulin/BTC PicoKine ELISA Kit standard curve