

Mouse TGFB β 3 / Betaglycan Protein (His Tag)

Catalog Number: 50542-M08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

betaglycan; BGCAN; 1110036H20Rik; AU015626; AW215636; TBR11

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse TGFB β 3 (NP_072075.2) (Met 1-Arg 399) was expressed, with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μ g of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gly 23

Molecular Mass:

The recombinant mouse TGFB β 3 consists of 774 amino acids and has a predicted molecular mass of 86.3 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmTGFB β 3 is approximately 80-90 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

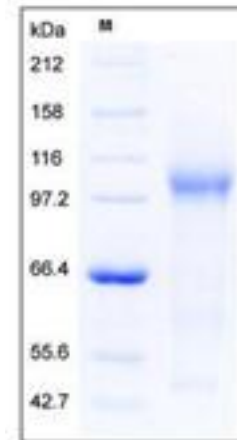
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Betaglycan also known as transforming growth factor beta receptor III (TGFB β 3), is a cell-surface chondroitin sulfate / heparan sulfate proteoglycan. TGFB β 3 is a transforming growth factor (TGF)-beta type III receptor. This receptor is a membrane proteoglycan that often functions as a co-receptor with other TGF-beta receptor superfamily members. Ectodomain shedding produces soluble TGFB β 3, which may inhibit TGF β signaling. Decreased expression of this receptor has been observed in various cancers. TGFB β 3 is the TGF- β component most commonly downregulated among localized human prostate cancer studies. TGFB β 3 knockdown led to focus formation and enhanced expression of CD133, a marker found on prostate cancer stem cells. TGFB β 3 is an accessory receptor that binds to and modulates the activities of both transforming growth factor-beta (TGF β) and inhibin, two members of the TGF β superfamily of growth factors that regulate many aspects of reproductive biology. TGFB β 3 is known to be expressed in adult testis and ovary, but little is known about this receptor during gonadogenesis.

References

1. Johnson DW, *et al.* (1996) Assignment of human transforming growth factor-beta type I and type III receptor genes (TGFB β 1 and TGFB β 3) to 9q33-q34 and 1p32-p33, respectively. *Genomics*. 28 (2): 356-7.
2. Rotzer D, *et al.* (2001) Type III TGF-beta receptor-independent signalling of TGF-beta2 via T betaRII-B, an alternatively spliced TGF- type II receptor. *EMBO J*. 20 (3): 480-90.
3. Gao J, *et al.* (1999) Expression of transforming growth factor-beta receptors types II and III within various cells in the rat periodontium. *J Periodont Res*. 34 (2): 113-22.

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