Mouse TGF-beta 2 / TGFB2 Protein (His Tag), Biotinylated

Catalog Number: 50153-M08H-B

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

BB105277; TGF-beta 2; Tgf-beta2; Tgfb-2; TGFB2

Protein Construction:

A DNA sequence encoding the mouse Tgfb2 (NP_033393.2) (Met1-Ser414) was expressed with a polyhistidine tag at the C-terminus. The purified protein was biotinylated in vitro.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg protein as determined by the LAL method.

Predicted N terminal: Ser 20

Molecular Mass:

The recombinant mouse Tgfb2 consists 406 amino acids and predicts a molecular mass of 46.9 kDa.

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

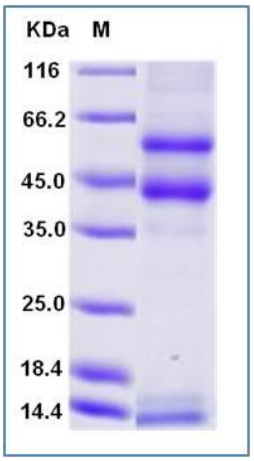
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

TGF beta 2 (Transforming growth factor beta 2), an extracellular glycosylated protein, which belongs to the TGF-beta family. TGF-beta regulates key mechanisms of tumor development, namely immunosuppression, metastasis, angiogenesis, and proliferation. TGF beta 2 suppression is a promising therapeutic approach for malignant tumor therapy. The signaling pathway of TGF beta 2/Smad plays an important role in the pathological process in posterior capsule opacification (PCO) after cataract surgery. Silencing Smad2 and Smad3 efficiently blocked the effect of TGF beta 2 on cell proliferation, migration, and extracellular matrix production. TGF beta 2 activation of MEKK3/ERK1/2/5 signaling modulates Has2 expression and hyaluronan (HA) production leading to the induction of epithelial to mesenchymal transformation (EMT) events. Besides, the upregulation of the TGF beta 2 level is a common pathological feature of Alzheimer's disease (AD) brains and suggests that it may be closely linked to the development of neuronal death related to AD.

References

1.Schlingensiepen KH, *et al.* (2006) Targeted tumor therapy with the TGF-beta 2 antisense compound AP 12009. Cytokine Growth Factor Rev. 17(1-2): 129-39. 2.Ghatpande SK, *et al.* (2010) Transforming growth factor beta2 is negatively regulated by endogenous retinoic acid during early heart morphogenesis. Dev Growth Differ. 52(5): 433-55. 3.Noguchi A, *et al.* (2010) Transforming growth factor beta2 level is elevated in neurons of Alzheimer's disease brains. Int J Neurosci. 120(3): 168-75.