Mouse Smad2 Protein (His & GST Tag)

Catalog Number: **50727-M20B**

General Information

Gene Name Synonym:

7120426M23Rik; Madh2; Madr2; mMad2; Smad-2

Protein Construction:

A DNA sequence encoding the mouse SMAD2 (Q62432-Isoform Long) (Ser2-Ser467) was expressed with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Mouse

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

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

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant mouse SMAD2/GST chimera consists of 703 amino acids and has a calculated molecular mass of 80 kDa. The recombinant protein migrates as an approximately 90 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM Nacl, pH 8.0, 10% glycerol, 3mM DTT

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:

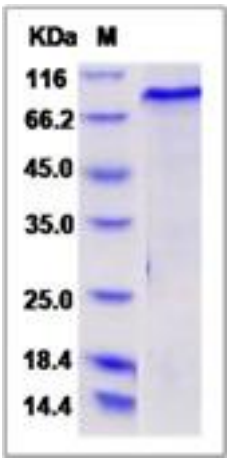
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

SMAD2 is a member of the SMAD family. Members of this family mediate signal transduction by the TGF-beta/activin/BMP-2/4 cytokine superfamily from receptor Ser/Thr protein kinases at the cell surface to the nucleus. SMAD2 mediates the signal of the TGF-beta, and therefore regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. SMAD2 is recruited to the TGF-beta receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. SMAD2 is the downstream signal transducers of TGF-beta-1 in human dental pulp cells. In response to TGF-beta signal, this protein is phosphorylated by the TGF-beta receptors. Phosphorylated SMAD2 is able to form a complex with SMAD4 or SARA. These complexes accumulate in the cell nucleus, where they are directly participating in the regulation of gene expression.

References

1.Feng. et al., 2002, Mol Cell. 9 (1): 133-43. 2.Zhu Y. et al., 1997, J Biol Chem. 272 (15): 10035-40. 3.Zi Z. et al., 2012, FEBS Lett. 586 (14): 1921-8.