Recombinant Mouse SMAD3 Protein (His &GST Tag)

Catalog Number: PKSM040402

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

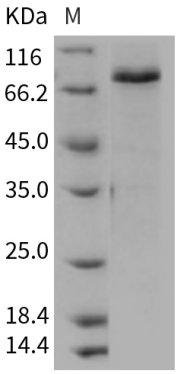
Description

Species	Mouse
Source	Baculovirus-Insect Cells-derived Mouse SMAD3 protein Met1-Ser425, with an N-terminal His & GST
Calculated MW	75.9 kDa
Accession	P84025
Bio-activity	Not validated for activity

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, 2mM GSH, 10% glycerol, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 85 % as determined by reducing SDS-PAGE.

Background

SMAD3 belongs to 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. SMAD3 is involved in cell signalling. It modulates signals of activin and TGFβ's. Binding of SMAD3 with SMAD4 enables its transmigration into the nucleus where it forms complexes with other proteins and acts as a transcription factor. SMAD3 is a receptor-regulated SMAD (R-SMAD). In mice, mutation of SMAD3 has been linked to colorectal adenocarcinoma, increased systemic inflammation, and accelerated wound healing. Increased SMAD3 activity has been implicated in the pathogenesis of scleroderma. Smad3 is also a multifaceted regulator in adipose physiology and the pathogenesis of obesity and type 2 diabetes.

For Research Use Only