



Recombinant Protein Technical Manual

Recombinant Mouse SMAD2 Protein (His & GST Tag)

RPES5003

Product Data:

Product SKU: RPES5003

Size: 20µg

Species: Mouse

Expression host: Baculovirus-Insect Cells

Uniprot: Q62432-Isoform Long

Protein Information:

Molecular Mass: 80 kDa

AP Molecular Mass: 90 kDa

Tag: N-His-GST

Bio-activity:

Purity: > 90 % as determined by SDS-PAGE

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

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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, pH 8.0, 10% glycerol, 3mM DTT

Reconstitution: Please refer to the printed manual for detailed information.

Application:

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

Immunogen Information:

Sequence: Ser2-Ser467

Background:

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 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.