# Recombinant Mouse Smad5 Protein

**Catalog Number: PKSM040515**

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

## Description

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| **Species** | Mouse |
| **Source** | Baculovirus-Insect Cells-derived Mouse Smad5 protein Thr2-Ser465 |
| **Calculated MW** | 52.2 kDa |
| **Observed MW** | 57 kDa |
| **Accession** | P97454 |
| **Bio-activity** | Not validated for activity |

## Properties

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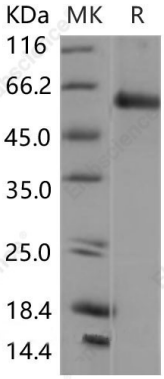
|---|---|
| **Purity** | > 90% as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored 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 20 mM Tris, 500 mM Nacl,10% glycerol, pH8.0<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 90 % as determined by reducing SDS-PAGE.

## Background

SMAD5 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. SMAD5 is involved in the TGF-beta signaling pathway that results in an inhibition of the proliferation of hematopoietic progenitor cells. It is also involved in cell signalling and modulates signals of bone morphogenetic proteins (BMP's). The binding of ligands causes the oligomerization and phosphorylation of the SMAD5 protein. SMAD5 is a receptor regulated SMAD (R-SMAD) and is activated by bone morphogenetic protein type 1 receptor kinase.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