# Recombinant Human SMAD3 Protein (His & Flag Tag)

**Catalog No.** PKSH032763

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

## Description

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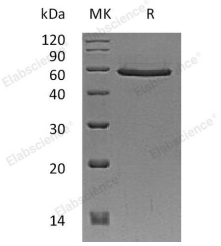
|---|---|
| **Synonyms** | Mothers against decapentaplegic homolog 3;MAD homolog 3;Mad3;Mothers against DPP homolog 3;hMAD-3;JV15-2;SMAD family member 3;SMAD 3;Smad3;hSMAD3;SMAD3;MADH3 |
| **Species** | Human |
| **Expression Host** | E.coli |
| **Sequence** | Ser2-Ser425 |
| **Accession** | P84022 |
| **Calculated Molecular Weight** | 50.5 kDa |
| **Observed molecular weight** | 50-60 kDa |
| **Tag** | N-His-Flag |
| **Bioactivity** | 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** | Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles. |
| **Shipping** | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C. |
| **Formulation** | Supplied as a 0.2 μm filtered solution of 20mM Tris-HCl, 500mM NaCl, 10% Glycerol, 2mM EDTA, pH 8.0. |
| **Reconstitution** | Not Applicable |

## Data




> 85 % as determined by reducing SDS-PAGE.

## Background

Mothers against decapentaplegic homolog 3(SMAD3) is a cytoplasm protein which belongs to the dwarfin/SMAD family. Smad proteins undergo rapid nuclear translocation upon stimulation by transforming growth factor and in so doing transduce the signal into the nucleus. Receptor-regulated SMAD is an intracellular signal transducer and transcriptional



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modulator activated by TGF-beta and activin type 1 receptor kinases. SMAD3 binds the TRE element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD3/SMAD4 complex, activates transcription. It also can form a SMAD3/SMAD4/JUN/FOS complex at the AP-1/SMAD site to regulate TGF-beta-mediated transcription. SMAD3 has an inhibitory effect on wound healing probably by modulating both growth and migration of primary keratinocytes and by altering the TGF-mediated chemotaxis of monocytes. This effect on wound healing appears to be hormone-sensitive.


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