Data Sheet (Cat.No.TMPJ-00271)

TargetMol

SMAD3 Protein, Human, Recombinant (His & Flag)

General Information

Synonyms:	SMAD 3;Mothers against DPP homolog 3;hMAD-3;MADH3;JV15-2;SMAD family member 3; SMAD3;MAD homolog 3;Mothers against decapentaplegic homolog 3;hSMAD3;Mad3
Protein Construction:	Ser2-Ser425
Species:	Human
Expression Host:	E. coli
Accession:	P84022
Molecular Weight:	50-60 KDa (reducing condition)
AA Sequence:	Ser2-Ser425

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 85% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Supplied as a 0.2 μm filtered solution of 20 mM Tris-HCl, 500 mM NaCl, 10% Glycerol, 2 mM EDTA, pH 8.0.

Preparation and Storage

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein 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 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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