



Recombinant Protein Technical Manual

Recombinant Human SMAD3 Protein (His & Flag Tag) RPES4825

Product Data:

Product SKU: RPES4825

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P84022

Protein Information:

Molecular Mass: 50.3 kDa

AP Molecular Mass: 60 kDa

Tag: N-6His-Flag

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg 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 a 0.2 µm filtered solution of 20mM PB, 500mM NaCl, pH7.5.

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

Application:

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

Immunogen Information:

Sequence: Ser2-Ser425

Background:

Mothers against decapentaplegic homolog 3 (SMAD3) is a cytoplasm protein which belongs to the 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/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.