

Recombinant Human SMAD3 Protein (His &Flag Tag)

Catalog Number: PKSH032763

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

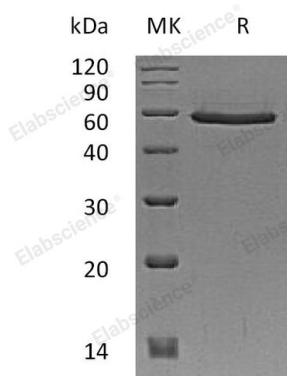
Description

Species	Human
Source	E.coli-derived Human SMAD3 protein Ser2-Ser425, with an N-terminal His & Flag
Calculated MW	50.5 kDa
Observed MW	50-60 kDa
Accession	P84022
Bio-activity	Not validated for activity

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
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.

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 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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