

Smad3 recombinant protein

Smad3 Protein, Human, Mouse, Rat, Recombinant (His & GST Tag)

CATALOG #
AAA258217

HOST
Baculovirus-Insect Cells

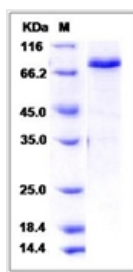
PRODUCT SYNONYMS

Smad3; Smad3 Protein; Human; Mouse; Rat; Recombinant (His & GST Tag); Human/Mouse/Rat SMAD3 Protein (His & GST Tag); SMAD family member 3; Smad3 recombinant protein

PRODUCT SPECIFICATIONS

Host	Baculovirus-Insect Cells
Purity/Purification	>85% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile 20mM Tris, 500mM NaCl, 2mM GSH, 10% glycerol, pH 7.4.
Sequence	Met1-Ser42 5
Source	Human, Mouse, Rat
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Met
Tag	N-GST & His
Protein Construction	A DNA sequence encoding the human/mouse/rat SMAD3 (NP_058049.3)(Met1-Ser425) was expressed with the N-terminal polyhistidine-tagged GST tag at the N-terminus. Human, Mouse and Rat sequences are identical.
Reconstitution	It is recommended that the sterile water (400ul) be added to the vial to prepare a stock solution of 0.25mg/mL . Concentration is measured by UV.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for Smad3 recombinant protein	Background: SMAD3 belongs to 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. SMAD3 is involved in cell signalling. It modulates signals of activin and TGFbeta's. Binding of SMAD3 with SMAD4 enables its transmigration into the nucleus where it forms complexes with other proteins and acts as a transcription factor. SMAD3 is a receptor-regulated SMAD (R-SMAD). In mice, mutation of SMAD3 has been linked to colorectal adenocarcinoma, increased systemic inflammation, and accelerated wound healing. Increased SMAD3 activity has been implicated in the pathogenesis of scleroderma. Smad3 is also a multifaceted regulator in adipose physiology and the pathogenesis of obesity and type 2 diabetes.
Product Categories/Family for Smad3 recombinant protein	TGF-beta Signaling
References	Tan. et al., 2011, Diabetes. 60 (2): 464-76. Yang X. et al., 1999, Nat Cell Biol. 1 (5): 260-6. Zhu Y. et al., 1998, Cell. 94 (6): 703-14. Feng X. et al., 1996, Nature. 383 (6596): 168-72.

NCBI AND UNIPROT INFORMATION

NCBI GI #	254675249
NCBI GeneID	17127
NCBI Accession #	NP_058049.3
NCBI GenBank Nucleotide #	NM_016769.4
UniProt Accession #	Q8BUN5; O09064; O09144; O14510; O35273; Q8BX84; Q92940; Q93002; Q9GKR4
Molecular Weight	The recombinant human / mouse / rat SMAD3 consists of 662 amino acids and has a calculated molecular mass of 75.9 kDa.
NCBI Official Full Name	mothers against decapentaplegic homolog 3
NCBI Official Synonym Full Names	SMAD family member 3
NCBI Official Symbol	Smad3
NCBI Official Synonym Symbols	Madh3; AU022421
NCBI Protein Information	mothers against decapentaplegic homolog 3
UniProt Protein Name	Mothers against decapentaplegic homolog 3
UniProt Gene Name	Smad3
UniProt Synonym Gene Names	Madh3; MAD homolog 3; Mad3; Mothers against DPP homolog 3; mMad3; SMAD 3; Smad3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.