

Product datasheet for **TP508755**

Smad4 (NM_008540) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse SMAD family member 4 (Smad4), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA	>MR208755 protein sequence
Clone or AA Sequence:	Red=Cloning site Green=Tags(s)

MDNMSITNTPTSNDACLSIVHSLMCHRQGGSETFAKRAIESLVKKLKEKKDELDSLITAITTNGAHPSK
CVTIQRTLDGRLQVAGRKGFPHVIYARLWRWPDLHKNELKHVKYCQYAFDLKCDSVCVNPYHYERVVSPG
IDLSGLTLQSNAPSMMLVKDEYVHDFEGQPSLPTEGHSIQTIQHPPSNRASTETYSAPALLAPAESNATST
TNFPNIPVASTSQPASILAGSHSEGLLQIASGPQPGQQQNGFTAQPATYHHNSTTTWTGSRTPYTPNLP
HHQNGHLQHPPMPPHPGHYWPVHNELAFQPPISNHPAPEYWCSIAYFEMDVQVGETFKVPSSCPVTVTD
GYVDPSSGGDRFCLGQLSNVHRTEAIERARLHIGKGVQLECKGEGDVWVRCLSDHAVFVQSYLDREAGRA
PGDAVHKIYPSAYIKVFDLRQCHRQMQQQAATAQAAAAAQAQAAVAGNIPGPGSVGGIAPAISSAAAGIG
VDDLRLRLCILRMSFVKGWGPDYPRQSIKETPCWIEIHLHRALQLLDEVLHTMPIADPQPLD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	60.3 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_032566



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Locus ID:	17128
UniProt ID:	P97471
RefSeq Size:	3361
Cytogenetics:	18 49.51 cM
RefSeq ORF:	1656
Synonyms:	AW743858; D18Wsu70e; DPC4; Madh4
Summary:	<p>Common SMAD (co-SMAD) is the coactivator and mediator of signal transduction by TGF-beta (transforming growth factor). Component of the heterotrimeric SMAD2/SMAD3-SMAD4 complex that forms in the nucleus and is required for the TGF-mediated signaling. Promotes binding of the SMAD2/SMAD4/FAST-1 complex to DNA and provides an activation function required for SMAD1 or SMAD2 to stimulate transcription. Component of the multimeric SMAD3/SMAD4/JUN/FOS complex which forms at the AP1 promoter site; required for synergistic transcriptional activity in response to TGF-beta. May act as a tumor suppressor. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator (By similarity). Acts synergistically with SMAD1 and YY1 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression (PubMed:15329343). Binds to SMAD binding elements (SBEs) (5'-GTCT/AGAC-3') within BMP response element (BMPRE) of cardiac activating regions (PubMed:15329343). In muscle physiology, plays a central role in the balance between atrophy and hypertrophy. When recruited by MSTN, promotes atrophy response via phosphorylated SMAD2/4. MSTN decrease causes SMAD4 release and subsequent recruitment by the BMP pathway to promote hypertrophy via phosphorylated SMAD1/5/8.[UniProtKB/Swiss-Prot Function]</p>