



## RayBiotech, Inc.

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### Certificate of Analysis and Data Sheet

## Recombinant Human Mothers Against Decapentaplegic Homolog 4

**Catalog No.**  
228-11437

**Source**  
*Escherichia Coli*

### **Synonyms**

JIP, DPC4, MADH4, SMAD-4, DPC-4, MADH-4, Mothers against decapentaplegic homolog 4, Mothers against DPP homolog 4, SMAD 4, hSMAD4, Deletion target in pancreatic carcinoma 4, SMAD4, SMAD family member 4.

### **Introduction:**

SMAD4 is part of the SMAD family of proteins that 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. SMAD4 promotes the binding of the SMAD2/SMAD4/FAST-1 complex to DNA and provides the function of activation required for SMAD1 or SMAD2 to stimulate transcription acts as a tumor suppressor. SMAD4 is a target molecule for functional inactivation in cervical cancer. SMAD4 is an important biomarker for malignant transformation takes part in inducing apoptosis by modulating Bcl-2/Bax balance.

### **Description:**

SMAD4 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 572 amino acids (1-552) and having a molecular mass of 62.6 kDa. SMAD4 is fused to 20 amino acid His-Tag at N-Terminus and purified by standard chromatography techniques.

### **Physical Appearance**

Sterile Filtered colorless solution.

### **Formulation:**

The SMAD4 protein solution (1mg/ml) contains 20mM Tris-HCl pH-8, and 20% glycerol.

### **Stability:**

SMAD4 although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

### **Purity**

Greater than 90.0% as determined SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
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### *Amino Acid Sequence*

MGSSHHHHHH SSGLVPRGSH MDNMSITNTP TSNDACLSIV HSLMCHRQGG ESETFAKRAI  
ESLVKKLKEK KDELDSLITA ITTNGAHP SK CVTIQRTLDG RLQVAGRKGF PHVIYARLWR  
WPD LHKNELK HVKYCQYAFD LKCD S VCVNP YHYERVVSPG IDLSGLTLQS NAPSSMMVKD  
EYVHDFEGQP SLSTEGHSIQ TIQHPPSNRA STETYSTPAL LAPSESNATS TANFPNIPVA  
STSQPASILG GSHSEGLLQI ASGPQPGQQQ NGFTGQPATY HHNSTTTWTG SRTAPYTPNL  
PHHQNGHLQH HPPMPHPHGH YWPVHNELAF QPPISNHPAP EYWCSIA YFE MDVQVGETFK  
VPSSCPIVTV DGYVDPSGGD RFCLGQLSNV HRTEAIERAR LHIGKGVQLE CKGEDVWVR  
CLSDHAVFVQ SYYLDREAGR APGDAVHKIY PSAYIKVFDL RQCHRQMQQQ AATAQAAAAA  
QAAAVAGNIP GPGSVGGIAP AISLSAAAGI GVDDLRLLCI LRMSFVKGWG PDYPRQSIKE  
TPCWIEIHLH RALQLLDEV L HTMPIADPQP LD.

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