

## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

### Certificate of Analysis and Data Sheet

## Rabbit Anti-Human Smad1 (pSer214)

**Catalog No:**  
130-00004

**Isotype:**  
Rabbit IgG

**Species:**  
Human

**Accession No:**  
Q15797

### Description

Mothers against decapentaplegic homolog 1 also known as SMAD family member 1 or SMAD1 is a protein in humans encoded by the *SMAD1* gene. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation.

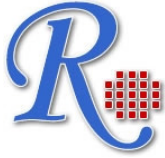
### Applications

Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	*			1:32,000
Western Blotting	*			1:1,000
Enzyme Immunoassay(EIA)			*	
Immunohistology - paraffin			*	
Immunohistology - resin			*	
Immunoprecipitation			*	
Flow Cytometry			*	
Neutralization			*	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### **Preparation**

A phosphorylated synthetic peptide corresponding to the region of amino acids containing serine 214 of human SMAD1 protein was used as immunogen. This antibody was produced from a rabbit immunized with this peptide conjugated with KLH. The IgG fraction was purified from rabbit serum by Protein G affinity chromatography.

### **Specificity**

This antibody can specifically bind to human SMAD1 only when phosphorylated at Ser214. Cross reactivity with mouse or rat SMAD1 was not tested.

### **Reconstitution**

Product is supplied as a powder obtained from lyophilization of purified antibody in PBS without preservatives. Reconstitute the antibody with sterile 1 x PBS to a final concentration of 1 mg/ml.

### **Storage**

Store at 4°C if intended for use within one month, otherwise, store at -20°C to -80°C. The lyophilized antibody is stable for at least 18 months after the date of receipt when stored at -20°C to -80°C. After reconstitution, it can be aliquoted and stored frozen at -20°C to -80°C in a manual defrost freezer for 6 months without detectable loss of activity. Upon reconstitution, the antibody can also be stored for 1 month at 4°C. **Please avoid freeze-thaw cycles, as this will lower the activity of the antibody.**

### **Reference**

Hoodless, PA.; et al. (1996). "MADR1, a MAD-related protein that functions in BMP2 signaling pathways". *Cell* 85 (4): 489–500.  
Riggins, GJ.; et al. (1996). "Mad-related genes in the human". *Nat. Genet.* 13 (3): 347–9.

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