

## Basic Information

<b>Product Name</b>	Anti-SMAD1 Antibody	
<b>Gene Name</b>	SMAD1	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Polyclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, ICC/IF	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Smad1, different from the related rat sequence by one amino acid, and different from the related human sequence by two amino acids.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	52 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

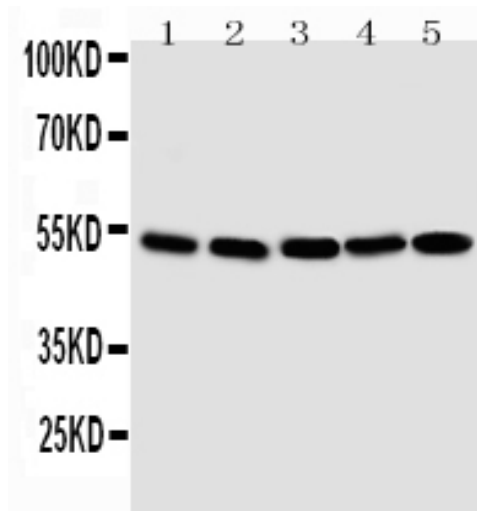
## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

Mothers against decapentaplegic homolog 1 also known as SMAD family member 1 or SMAD1 is a protein that in humans is encoded by the SMAD1 gene. SMAD1 belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene "mothers against decapentaplegic" (Mad) and the C. elegans gene Sma. The gene was assigned to human chromosome 4q31.21. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways.

## Selected Validation Data



Western blot analysis of SMAD1 using anti-SMAD1 antibody (BA3067). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: SMMC whole cell lysates,

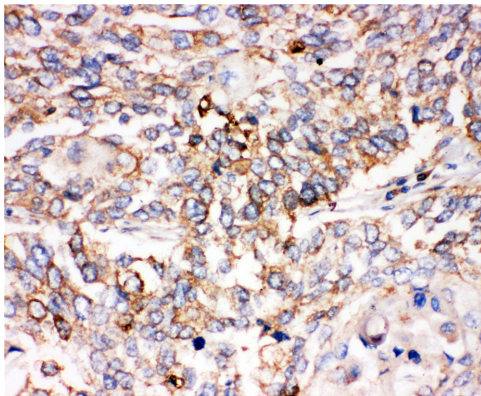
Lane 2: K562 whole cell lysates,

Lane 3: HT1080 whole cell lysates,

Lane 4: HELA whole cell lysates,

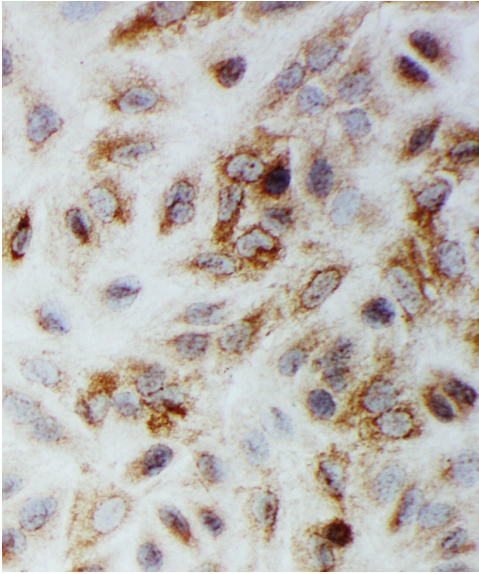
Lane 5: JURKAT whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-SMAD1 antigen affinity purified polyclonal antibody (BA3067) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for SMAD1 at approximately 52 kDa. The expected band size for SMAD1 is at 52 kDa.



IHC analysis of SMAD1 using anti-SMAD1 antibody (BA3067).

SMAD1 was detected in a paraffin-embedded section of human lung cancer tissue. The tissue section was incubated with rabbit anti-SMAD1 Antibody (BA3067) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



ICC analysis of SMAD1 using anti- SMAD1 antibody (BA3067).

SMAD1 was detected in an immunocytochemical section of A549 cells.

The section was incubated with rabbit anti-SMAD1 Antibody (BA3067) at a dilution of 1:100. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.