

## SMAD2 Rabbit monoclonal antibody

Catalog: MB66386

Host: Rabbit

Reactivity: Human, Rat, Hamster

### BackGround:

Members of the Smad family of signal transduction molecules are components of a critical intracellular pathway that transmit TGF- $\beta$  signals from the cell surface into the nucleus. Three distinct classes of Smads have been defined: the receptor-regulated Smads (R-Smads), which include Smad1, 2, 3, 5, and 8; the common-mediator Smad (co-Smad), Smad4; and the antagonistic or inhibitory Smads (I-Smads), Smad6 and 7. Activated type I receptors associate with specific R-Smads and phosphorylate them on a conserved carboxy-terminal SSXS motif. The phosphorylated R-Smad dissociates from the receptor and forms a heteromeric complex with the co-Smad (Smad4), allowing translocation of the complex to the nucleus. Once in the nucleus, Smads can target a variety of DNA binding proteins to regulate transcriptional responses.

### Product:

Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA.

### Molecular Weight:

~ 52 kDa

### Swiss-Prot:

Q15796

### Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

### Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/100), IF/ICC (1/50 - 1/100), IP (1/10 - 1/50)

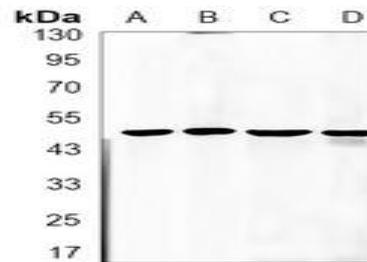
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

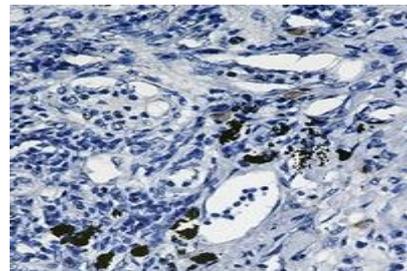
### Specificity:

Recognizes endogenous levels of SMAD2 protein.

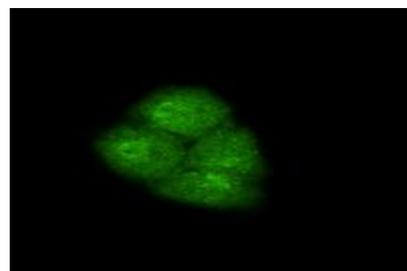
### DATA:



Western blot analysis of SMAD2 expression in C6 (A), HeLa (B), CHOK1 (C), Jurkat (D) whole cell lysates.



Immunohistochemical analysis of SMAD2 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.87). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of SMAD2 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells

### Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416, USA.

Email: [info@bioworld.com](mailto:info@bioworld.com)

Tel: 6123263284

Fax: 6122933841

### Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China.

Email: [info@biogot.com](mailto:info@biogot.com)

Tel: 0086-025-68037686

Fax: 0086-025-68035151



## PRODUCT DATA SHEET

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were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

**Note:**

For research use only, not for use in diagnostic procedure.

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Add: 1660 South Highway 100, Suite 500 St. Louis Park,  
MN 55416, USA.

Email: [info@bioworld.com](mailto:info@bioworld.com)

Tel: 6123263284

Fax: 6122933841

**Bioworld technology, co. Ltd.**

Add: No 9, weidi road Qixia District Nanjing, 210046,  
P. R. China.

Email: [info@biogot.com](mailto:info@biogot.com)

Tel: 0086-025-68037686

Fax: 0086-025-68035151