

Qty: 100 µg/400 µl

Rabbit anti-Smad2

Catalog No. 51-1300

Lot No. See product label

## Rabbit anti-Smad2

### FORM

This polyclonal antibody is supplied as a 400 µl aliquot at 0.25 mg/ml in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide (NaN<sub>3</sub>). The antibody is epitope affinity-purified from rabbit antiserum.

**POLYCLONAL ANTIBODY DESIGNATION (PAD):** MHA2

### IMMUNOGEN

A 27 amino acid synthetic peptide derived from the MH1 domain of human Smad2. This peptide shares 24/27 residues with the mouse Smad2 protein and 26/27 residues with the *Xenopus* Smad2 protein.

### SPECIFICITY

This antibody is specific for Smad2 and can be used to detect the predominant splice form of Smad2. Cross-reactivity with Smad3 or with other Smad family members has not been observed. Antibody reactivity was confirmed by Western blotting using lysates derived from Smad2-transfected COS cells and Jurkat cell lysates.

### REACTIVITY

This antibody reacts with human Smad2. Reactivity with other species has not been tested.

Sample	Western Blotting	ELISA
Human	+++	
Immunogen		+++

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. We recommend the following ranges as starting points for this product.

ELISA: 0.1-1.0 µg/ml  
Western Blotting<sup>(10)</sup>: 1-3 µg/ml

### STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long term storage. Avoid repeated freezing and thawing.

### BACKGROUND

Signaling events leading to transcriptional activation initiated by members of the TGF-beta superfamily are known to be mediated by SMAD proteins. Biological activities mediated by SMADs include cell growth and morphogenesis, development, and immune response. Activation by TGF-β is mediated by Smad2 and Smad3 while activation by bone morphogenetic protein (BMP) is mediated by Smad 1 and Smad 5. In contrast to the activating effects of these Smad proteins, Smad6 and Smad7, whose expression is also induced by ligand binding, appear to function as negative regulators of TGF-β superfamily signaling pathways.

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**RELATED PRODUCTS**

<b>Product</b>	<b>Conjugate</b>	<b>Cat. No.</b>
Protein A	Sepharose 4B	10-1041
rec-Protein G	Sepharose 4B	10-1241
ZyMAX™ Goat anti-rabbit IgG	Unconjugated	81-6100
ZyMAX™ Goat anti-mouse IgG	Unconjugated	81-6500

Secondary antibody conjugates.

<b>Conjugate</b>	<b>Goat anti-rabbit IgG (H+L)</b>	<b>Goat anti-mouse IgG (H+L)</b>	<b>Ex/Em*</b>	<b>Fluorescence similar to--</b>
Alexa Fluor® 488	A11008	A11001	495/519	FITC
Alexa Fluor® 555	A21428	A21422	555/565	Cy3
Alexa Fluor® 594	A11012	A11005	590/617	Texas Red
Alexa Fluor® 647	A21244	A21235	650/668	Cy5
HRP	81-6120	81-6520	NA**	NA
AP	81-6122	81-6522	NA	NA
Biotin	B2770	B2763	NA	NA

\*Excitation/emission (nm); \*\*Not applicable

For additional secondary antibody conjugates, visit [www.invitrogen.com/antibodies](http://www.invitrogen.com/antibodies)

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