



Qty: 100 µg/400 µL

Rabbit anti-Smad3

Catalog No. 51-1500

Lot No. See product label

Rabbit anti-Smad3

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. The antibody is epitope affinity-purified from rabbit antiserum.

POLYCLONAL ANTIBODY DESIGNATION (PAD): LPC3

IMMUNOGEN

A 20 amino acid synthetic peptide derived from a central portion of the linker domain of human Smad3.

SPECIFICITY

This antibody can be used to detect Smad3. The antibody shows very minor cross-reactivity with Smad2 (using relatively high concentrations of recombinant Smad2). Reactivity of this antibody with Smad3 is at least 5-10 times stronger than with Smad2. No reactivity was detected by Western blot in Smad2-transfected COS cells.

REACTIVITY

Reactivity of this antibody with Smad3 has been confirmed using human Smad3-transfected COS cells by Western blotting, and with formalin-fixed, paraffin-embedded (FFPE) human normal breast, esophagus, skin, and breast cancer tissues by immunohistochemistry.

Sample	Western Blotting	ELISA	Immuno-histochemistry (FFPE)*
Human	+++*	ND	+++
Immunogen	N/A	+++	N/A

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

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⁽¹⁰⁾: 1-3 µg/mL
Immunohistochemistry*: 1 µg/mL

* For best results in immunohistochemistry with formalin-fixed, paraffin-embedded (FFPE) tissues, heat induced epitope retrieval (HIER) with EDTA, pH 8.0, is required prior to staining.

STORAGE

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

(cont'd)

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PI511500

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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 Smad1 and Smad5. 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.

REFERENCES

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RELATED PRODUCTS

<u>Product</u>	<u>Clone/PAD</u>	<u>Cat. No.</u>
Rabbit anti-Smad2	MHA2	51-1300
Rabbit anti-Smad6	SD6	51-0900

<u>Product</u>	<u>Coniugate</u>	<u>Cat. No.</u>
Goat anti-Rabbit IgG (H+L) (ZyMAX™ Grade)	Purified	81-6100
	FITC	81-6111
	TRITC	81-6114
	Cy™3	81-6115
	Cy™5	81-6116
	HRP	81-6120
	AP	81-6122
	Biotin	81-6140

Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

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