

## SMAD7 Polyclonal Antibody

catalog number: **E-AB-53271**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

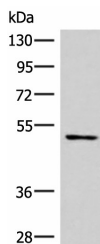
### Description

<b>Reactivity</b>	Human;Mouse;Rat
<b>Immunogen</b>	Synthetic peptide of human SMAD7
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Purification</b>	Antigen affinity purification
<b>Buffer</b>	Phosphate buffered solution, pH 7.4, containing 0.05% stabilizer and 50% glycerol.

### Applications

Applications	Recommended Dilution
<b>WB</b>	1:500-1:2000
<b>IHC</b>	1:40-1:200

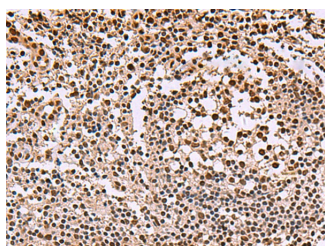
### Data



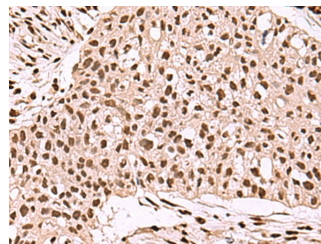
Western blot analysis of Mouse heart tissue lysate using SMAD7 Polyclonal Antibody at dilution of 1:900

**Observed-MW:Refer to figures**

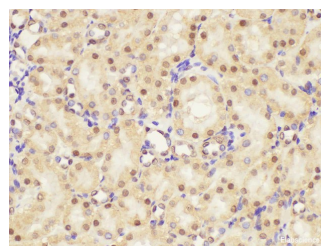
**Calculated-MW:46 kDa**



Immunohistochemistry of paraffin-embedded Human tonsil tissue using SMAD7 Polyclonal Antibody at dilution of 1:40 (x200)



Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using SMAD7 Polyclonal Antibody at dilution of 1:40 (x200)



Immunohistochemistry of paraffin-embedded Rat kidney using SMAD7 Polyclonal Antibody at dilution of 1:50

### Preparation & Storage

<b>Storage</b>	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
<b>Shipping</b>	The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

### Background

### For Research Use Only

SMAD7, also named as Mothers against decapentaplegic homolog 7, is a 426 amino acid protein, which belongs to the dwarfin/SMAD family. SMAD7 Interaction with NEDD4L or RNF111 induces translocation from the nucleus to the cytoplasm (PubMed:16601693). TGF-beta stimulates its translocation from the nucleus to the cytoplasm. PDPK1 inhibits its translocation from the nucleus to the cytoplasm in response to TGF-beta (PubMed:17327236). SMAD7 as antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members has been shown to inhibit TGF-beta (Transforming growth factor) and activin signaling by associating with their receptors thus preventing SMAD2 access. SMAD7 functions as an adapter to recruit SMURF2 to the TGF-beta receptor complex and also acts by recruiting the PPP1R15A-PP1 complex to TGFBR1, which promotes its dephosphorylation. SMAD7 positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator

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Toll-free: 1-888-852-8623  
Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086  
Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017

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