# **SMAD7 Polyclonal Antibody**

catalog number: E-AB-53271



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

### Description

Reactivity Human; Mouse; Rat

Immunogen Synthetic peptide of human SMAD7

Host Rabbit Isotype IgG

**Purification** Antigen affinity purification

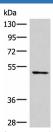
**Conjugation** Unconjugated

**buffer** Phosphate buffered solution, pH 7.4, containing 0.05% stabilizer and 50% glycerol.

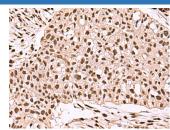
## Applications Recommended Dilution

**WB** 1:500-1:2000 **IHC** 1:40-1:200

#### Data



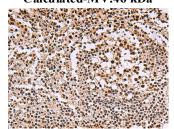
Western blot analysis of Mouse heart tissue lysate using SMAD7 Polyclonal Antibody at dilution of 1:900



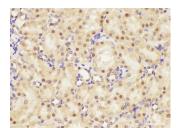
Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using SMAD7 Polyclonal Antibody at dilution of 1:40(×200)

#### **Observed-MV: Refer to figures**

### Calculated-MV:46 kDa



Immunohistochemistry of paraffin-embedded Human tonsil tissue using SMAD7 Polyclonal Antibody at dilution of 1:40(×200)



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

## Preparation & Storage

Storage Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.

**Shipping** The product is shipped with ice pack, upon receipt, store it immediately at the

temperature recommended.

#### Background

## For Research Use Only

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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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