

SMAD7 Polyclonal Antibody

Catalog No. E-AB-53271

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

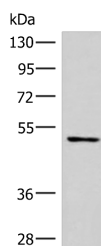
Description

Reactivity	Human, Mouse, Rat
Immunogen	Synthetic peptide of human SMAD7
Host	Rabbit
Isotype	IgG
Purification	Antigen affinity purification
Conjugation	Unconjugated
Buffer	PBS with 0.05% NaN ₃ and 40% Glycerol, pH7.4

Applications Recommended Dilution

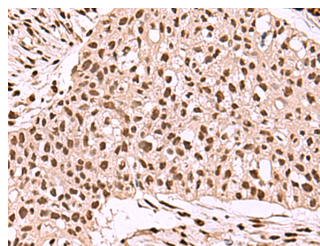
WB	1:500-1:2000
IHC	1:40-1:200

Data

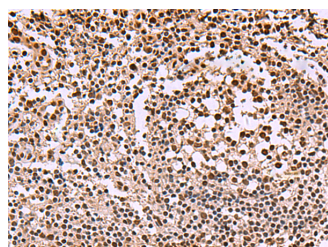


Western blot analysis of Mouse heart tissue lysate using SMAD7 Polyclonal Antibody at dilution of 1:900

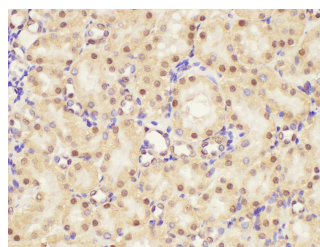
Observed Mw: Refer to figures
Calculated Mw: 46 kDa



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



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

For Research Use Only

Storage Store at -20°C. Avoid freeze / thaw cycles.

Background

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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