

IHCeasy[®] SMAD7 Ready-To-Use IHC Kit

Catalog Number: **KHC0127**

General Information

Sample type:
FFPE tissue
Cited sample type:
Reactivity:
Human, Mouse, Rat
Cited Reactivity:

Assay type:
Immunohistochemistry
Primary antibody type:
Mouse Monoclonal
Secondary antibody type:
Polymer-HRP-Goat anti-Mouse

Kit Component

Component	Size	Concentration
Antigen Retrieval Buffer	100 mL	50×
Washing Buffer	100 mL × 2	20×
Blocking Buffer	5 mL	RTU
Primary Antibody	5 mL	RTU
Secondary Antibody	5 mL	RTU
Chromogen Component A	0.2 mL	RTU
Chromogen Component B	4 mL	RTU
Signal Enhancer	5 mL	RTU
Counter Staining Reagent	5 mL	RTU
Mounting Media	5 mL	RTU
Control Slide	1 slide (Optional)	FFPE
Datasheet	1 Copy	
Manual	1 Copy	

Storage Instructions

All the reagents are stored at 2-8°C. The kit is stable for 6 months from the date of receipt.

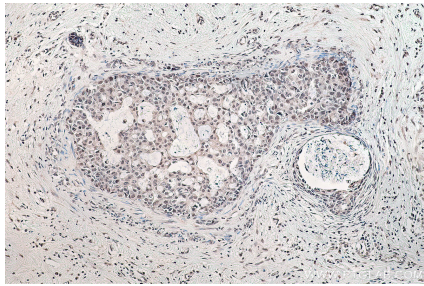
Background

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. 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. 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.

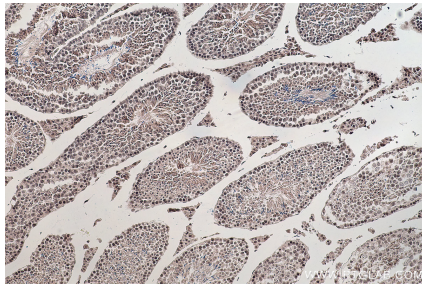
Synonyms

CRCS3, hSMAD7, MAD homolog 7, MAD homolog 8, MADH7, MADH8, Mothers against DPP homolog 7, Mothers against DPP homolog 8, SMAD 7, SMAD family member 7, SMAD7

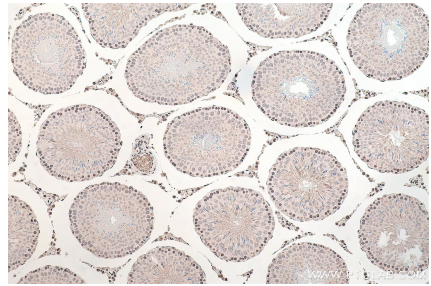
Selected Validation Data



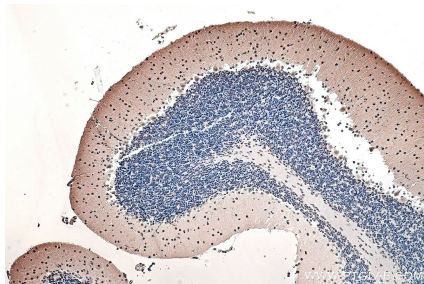
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using KHC0127 (SMAD7 IHC Kit).



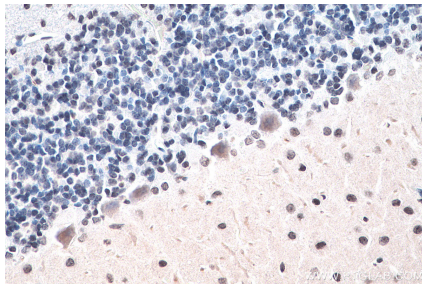
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using KHC0127 (SMAD7 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat testis tissue slide using KHC0127 (SMAD7 IHC Kit).



Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using KHC0127 (SMAD7 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue slide using KHC0127 (SMAD7 IHC Kit).