

IHC*easy* STK4 Ready-To-Use IHC Kit

Catalog Number: **KHC1699**

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.

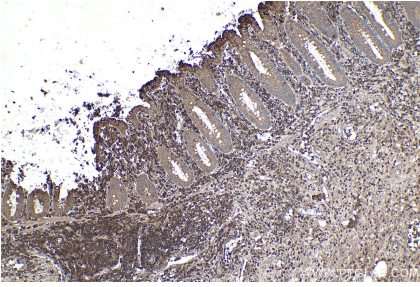
Background

Mammalian STE20-like serine-threonine kinase MST1, encoded by the STK4 gene, is a multifunctional protein. MST1 and its closest paralogs MST2 (encoded by the STK3 gene), MST3, and MST4 are members of the Class II Germinal Center Family of Protein Kinases. STK3/4 and LATS1/2 are core kinase components of the Hippo tumor suppressor pathway in mammals. In the conventional Hippo pathway, the STK3/4 and LATS1/2 signaling cascade phosphorylates and inactivates the transcriptional coactivator YAP1 and its close paralog WWTR1. YAP1 and WWTR1 do not have DNA binding domains and they exert their biological outputs, such as cell proliferation and survival, by interacting with the TEAD1-4 transcription factors. Lines of evidence have indicated that dysregulation or loss of STK4/Hippo signaling is linked to developmental disorders and carcinogenesis with poor prognosis. STK4 is a stress-induced kinase and it can be activated in response to cell-death inducers. Autophosphorylation of STK4 at Thr183 (Thr180 in STK3) in the activation loop is a key activation mechanism for STK4/3 because phosphorylation of Thr183/180 causes the cleavage of STK4 by caspases under apoptotic conditions. The caspase-cleavage results in a more active STK4 protein (STK4-N, an amino-terminally truncated STK4), which localizes into the nucleus and induces apoptosis through histone modifications and chromatin condensations.

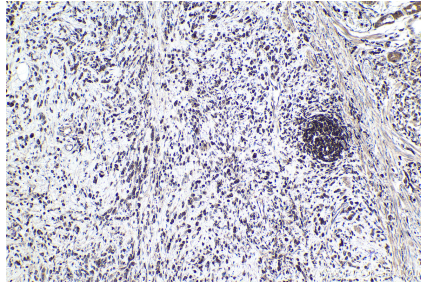
Synonyms

DKFZp686A2068, KRS2, MST 1, MST1, serine/threonine kinase 4, STE20 like kinase MST1, STK4, YSK3

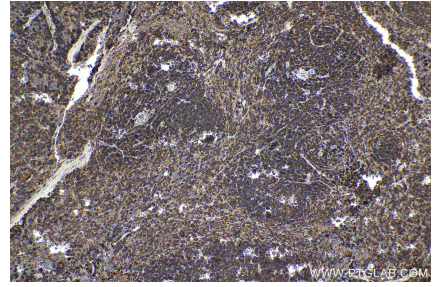
Selected Validation Data



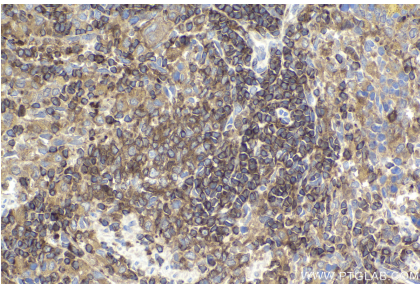
Immunohistochemical analysis of paraffin-embedded human appendicitis tissue slide using KHC1699 (STK4 IHC Kit).



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using KHC1699 (STK4 IHC Kit).



Immunohistochemical analysis of paraffin-embedded mouse spleen tissue slide using KHC1699 (STK4 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat spleen tissue slide using KHC1699 (STK4 IHC Kit).