

## Allgemeine Informationen

**Katalog-Nr.:**  
22245-1-AP

**Größe:**

150ul, Konzentration: 1000 µg/ml von 6789  
Nanodrop und 560 µg/ml durch die  
Bradford-Methode mit BSA als  
Standard;

**Wirt:**

Kaninchen

**Isotyp:**

IgG

**Immunogen Katalognummer:**

AG17738

**GenBank-Zugangsnummer:**

BC093768

**GeneID (NCBI):**

6789

**Vollständiger Name:**

serine/threonine kinase 4

**Berechnete Masse:**

487 aa, 56 kDa

**Beobachtete Masse:**

56 kDa

**Reinigungsmethode:**

Antigen-Affinitätsreinigung

**Empfohlene Verdünnungen:**

WB 1:1000-1:6000

IP 0.5-4.0 µg für IP und 1:500-1:2000  
für WB

IHC 1:50-1:500

IF 1:20-1:200

## Anwendungen

**Geprüfte Anwendungen:**

IF, IHC, IP, WB, ELISA

**In Publikationen genannte Anwendungen:**

IF, IHC, IP, WB

**Getestete Reaktivität:**

Human, Maus, Ratte

**Zitierte Arten:**

Human, Maus, Ratte

**Hinweis-IHC: Antigendemaskierung mit TE-Puffer pH 9,0 empfohlen. (\*) Wahlweise kann die Antigendemaskierung auch mit Citratpuffer pH 6,0 erfolgen.**

**Positivkontrollen:**

**WB:** HeLa-Zellen, C2C12-Zellen, HepG2-Zellen, Jurkat-Zellen, Mausemilzgewebe, Ramos-Zellen, Rattenlebergewebe, Rattenmilzgewebe

**IP:** HeLa-Zellen,

**IHC:** humanes Prostatakarzinomgewebe,

**IF:** HepG2-Zellen,

## Hintergrundinformationen

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 (large tumor suppressor 1 and 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 (yes associated protein 1) 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.

## Bemerkenswerte Veröffentlichungen

Verfasser	Pubmed ID	Journal	Anwendung
Ting-Ting Zhang	28893403	Tissue Cell	WB,IHC
Qingxu Liu	34678143	Cell	IF,WB
Wenjiao Li	30315205	Cell Death Differ	WB

## Lagerung

**Lagerungsbedingungen:**

Bei -20°C lagern. Nach dem Versand ein Jahr lang stabil

**Lagerungspuffer:**

PBS mit 0.02% Natriumazid und 50% Glycerin pH 7.3.

Aliquotieren ist nicht notwendig bei -20°C Lagerung

\*\*\* 20ul-Größen enthalten 0.1% BSA

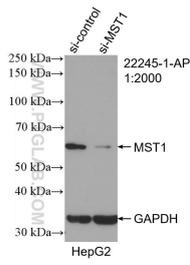
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

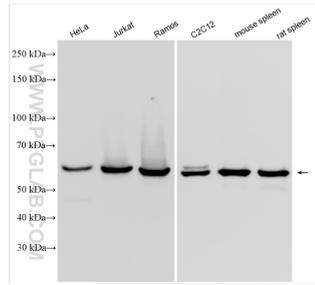
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

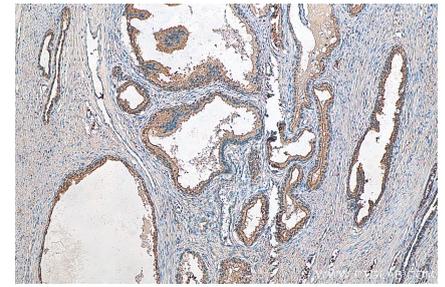
## Ausgewählte Validierungsdaten



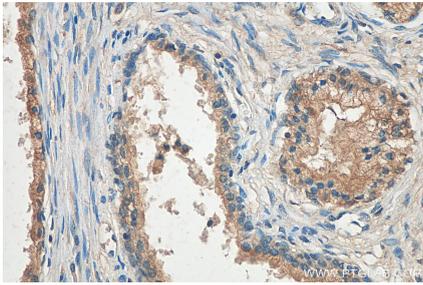
WB result of MST1 antibody (22245-1-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-MST1 transfected HepG2 cells.



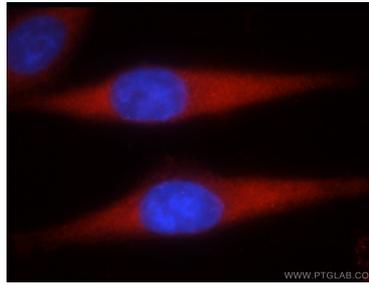
Various lysates were subjected to SDS PAGE followed by western blot with 22245-1-AP (MST1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



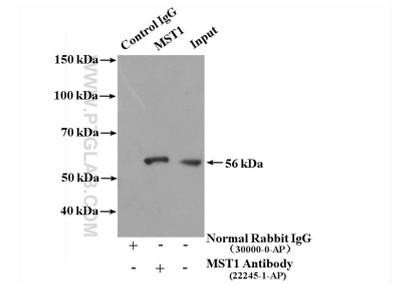
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 22245-1-AP (MST1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 22245-1-AP (MST1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of HepG2 cells using 22245-1-AP (MST1 antibody) at dilution of 1:50 and Rhodamine-labeled goat anti-rabbit IgG (red).



IP Result of anti-MST1 (IP:22245-1-AP, 4ug; Detection:22245-1-AP 1:1000) with HeLa cells lysate 2000ug.