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# MASTL Antibody
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP7147d**

## Specification

### MASTL Antibody - Product Information

| | |
|---|---|
| Application | **WB, IHC-P, FC,E** |
| Primary Accession | Q96GX5 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |

### MASTL Antibody - Additional Information

**Gene ID** 84930

**Other Names**
Serine/threonine-protein kinase greatwall, GW, GWL, hGWL, Microtubule-associated serine/threonine-protein kinase-like, MAST-L, MASTL, GW, GWL, THC2

**Target/Specificity**
This MASTL antibody is generated from rabbits immunized with human partial MASTL recombinant protein.

**Dilution**
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
MASTL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### MASTL Antibody - Protein Information

**Name** MASTL

**Synonyms** GW, GWL, THC2

**Function** Serine/threonine kinase that plays a key role in M phase by acting as a regulator of

mitosis entry and maintenance. Acts by promoting the inactivation of protein phosphatase 2A (PP2A) during M phase: does not directly inhibit PP2A but acts by mediating phosphorylation and subsequent activation of ARPP19 and ENSA at 'Ser- 62' and 'Ser-67', respectively. ARPP19 and ENSA are phosphatase inhibitors that specifically inhibit the PPP2R2D (PR55-delta) subunit of PP2A. Inactivation of PP2A during M phase is essential to keep cyclin-B1-CDK1 activity high. Following DNA damage, it is also involved in checkpoint recovery by being inhibited. Phosphorylates histone protein in vitro; however such activity is unsure in vivo. May be involved in megakaryocyte differentiation.

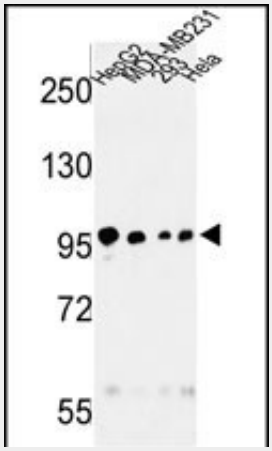
**Cellular Location**
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus. Cleavage furrow. Note=During interphase is mainly nuclear, upon nuclear envelope breakdown localizes at the cytoplasm and during mitosis at the centrosomes. Upon mitotic exit moves to the cleavage furrow.

## MASTL Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## MASTL Antibody - Images




Western blot analysis of MASTL Antibody (Cat. #AP7147d) in HepG2, MDA-MB231, 293, Hela cell line lysates (35ug/lane). MASTL (arrow) was detected using the purified Pab.

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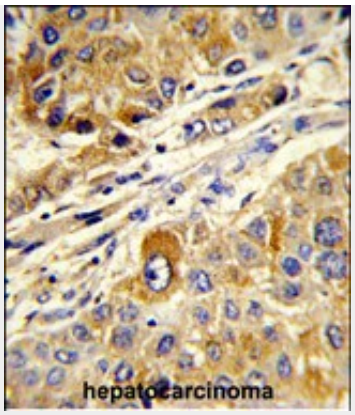
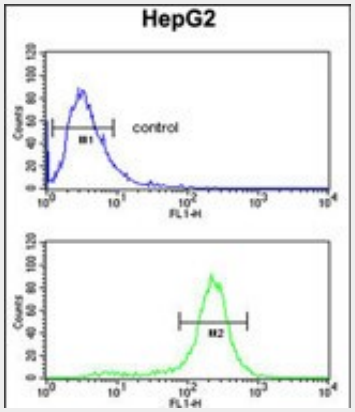



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with MASTL Antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.




MASTL Antibody (Cat. #AP7147d) flow cytometric analysis of HepG2 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

**MASTL Antibody - Background**

MASTL, microtubule associated serine/threonine kinase-like, contains 1 protein kinase domain which belongs to the Ser/Thr protein kinase family. It may be involved in megakaryocyte differentiation. Defects in MASTL are a cause of nonsyndromic autosomal

**MASTL Antibody - References**

Gandhi, M.J., et al., Hum. Hered. 55(1):66-70 (2003).

**MASTL Antibody - Citations**

- MKI-1, a Novel Small-Molecule Inhibitor of MASTL, Exerts Antitumor and Radiosensitizer Activities Through PP2A Activation in Breast Cancer
- Thrombocytopenia-associated mutations in Ser/Thr kinase MASTL deregulate actin cytoskeleton dynamics in platelets.
- MASTL inhibition promotes mitotic catastrophe through PP2A activation to inhibit cancer growth and radioresistance in breast cancer cells.