

Product datasheet for **TA392785**

MASTL Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:500~1:1000
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 820-880 of Human MASTL.
Specificity:	MASTL (F850) polyclonal antibody detects endogenous levels of MASTL protein.
Formulation:	Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2
Concentration:	1mg/ml
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.
Stability:	1 year
Predicted Protein Size:	~ 110 kDa
Gene Name:	microtubule associated serine/threonine kinase like
Database Link:	Entrez Gene 84930 Human Q96GX5



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Background:

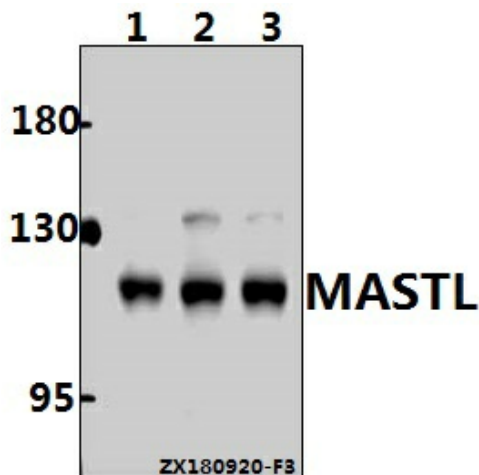
Mitotic control is important for normal growth, development, and maintenance of all eukaryotic cells. Research studies have demonstrated that inappropriate control of mitosis can lead to genomic instability and cancer. A regulator of mitosis, Greatwall kinase (Gwl), was first identified in *Drosophila melanogaster*. Subsequent studies showed that, based on sequence homology and function, microtubule-associated serine/threonine kinase-like (MASTL) is the human ortholog of Gwl. Regulation of MASTL/Gwl activation has been shown to be critical for the correct timing of mitosis. Research studies have shown that Gwl is activated by hyperphosphorylation. The phosphorylation of human Gwl at Thr194 and Thr207 by active cyclin B1-cdc2 leads to possible autophosphorylation at Ser875 (Ser883 in *Xenopus*), which stabilizes the kinase. Activated Gwl phosphorylates α -Endosulfine (ENSA) and cAMP-phospho-regulated phosphoprotein 19 (ARPP19) at Ser67 and Ser62, respectively. Phosphorylated ENSA and ARPP19 inhibit the activity of the B55 subunit-associated form of protein phosphatase 2A (PP2A-B55), allowing for complete phosphorylation of mitotic substrates by cyclin B1-cdc2 and mitotic entry. When Gwl is inactivated, PP2A-B55 reactivates, which leads to dephosphorylation of cyclin B1-cdc2 and mitotic exit.

Synonyms:

GW; GWL; hGWL; MAST-L; MASTL; Microtubule-associated serine/threonine-protein kinase-like; Serine/threonine-protein kinase greatwall; THC2

Note:

For research use only, not for use in diagnostic procedure.

Product images:

Western blot (WB) analysis of MASTL (F850) polyclonal antibody at 1:500 dilution. Lane 1: MCF-7 whole cell lysate (40ug). Lane 2: Myla2059 whole cell lysate (40ug). Lane 3: HepG2 whole cell lysate (40ug).