

MASTL (F850) polyclonal antibody

Catalog: BCP01065

Host: Rabbit

Reactivity: Human, Mouse

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 auto-phosphorylation 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.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

~ 110 kDa

Swiss-Prot:

Q96GX5

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB: 1:500~1:1000

Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

MASTL (F850) polyclonal antibody detects endogenous levels of MASTL protein.

DATA:



Western blot (WB) analysis of MASTL (F850) polyclonal antibody at 1:500 dilution

Lane1:MCF-7 whole cell lysate(40ug)

Lane2:Myla2059 whole cell lysate(40ug)

Lane3:HepG2 whole cell lysate(40ug)

Note:

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