GW monoclonal antibody

Catalog: MB67175 Host: Mouse Reactivity: Human

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-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:

Mouse IgG1 kappa. Supplied in crude ascites with 0.01% sodium azide.

Molecular Weight:

~ 95 kDa

Swiss-Prot:

Q96GX5

Purification&Purity:

Applications:

WB (1/1000 - 1/5000)

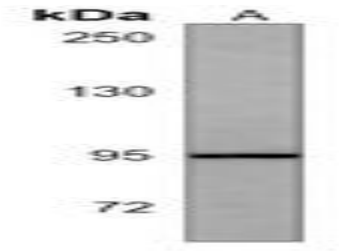
Storage&Stability:

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

Specificity:

Recognizes endogenous levels of GW protein.

DATA:



Western blot analysis of GW expression in HepG2 (A) whole cell lysates.

Note:

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

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