

Product Information

Monoclonal Anti-MASTL, clone 2C8/D11

produced in mouse, purified from hybridoma cell culture

Catalog Number **SAB4200649**

Product Description

Monoclonal Anti-MASTL (mouse IgG2b isotype) is derived from the hybridoma 2C8/D11 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a fusion protein of 250aa polypeptide from the region that divides the kinase domain of mouse MASTL (GeneID: 67121). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-MASTL recognizes human and monkey MASTL. The antibody may be used in various immunochemical techniques including immunoblotting (~100 kDa), flow cytometry and immunofluorescence.

MASTL (Microtubule-Associated Serine/Threonine kinase-Like, also known as GREATWALL (GWL) in *Drosophila* and *Xenopus*, is a cell cycle marker of M phase. It acts as a regulator of mitosis entry, anaphase and cytokinesis. In *Drosophila* MASTL (Greatwall) was originally identified as a kinase required for chromosome condensation. MASTL is localized to the nucleus, during M-phase MASTL is activated and re-localized to the centrosomes. MASTL enhances cyclin B1-Cdk1-dependent mitotic phosphorylation events. Furthermore, MASTL is also an inhibitor of the tumor suppressor PP2A, and thus maintains the equilibrium between cyclin B-Cdk1 and PP2A.¹⁻⁴

A missense mutation in the MASTL gene causes a novel form of autosomal dominant inherited thrombocytopenia.^{2,5}

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1–2 µg/mL is recommended using whole extracts of human HeLa cells.

Flow Cytometry: a working amount of 10–20 µg/test is recommended using human HeLa cells.

Immunofluorescence: a working concentration of 10–20 µg/mL is recommended using human HeLa cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Voets, E., and Wolthuis, R.M., *Cell Cycle*, **9**, 3591–3601 (2010).
2. Malumbres, M., *Physiol. Rev.*, **91**, 973–1007 (2011).
3. Lorca, T., and Castro, A., *Genes Cancer*, **3**, 712–720 (2012).
4. Burgess, A., et al., *Proc. Natl. Acad. Sci. USA*, **107**, 12564–12569 (2010).
5. Gandhi, M.J., et al., *Hum. Hered.*, **55**, 66–70 (2003).

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