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ProductInformation

Monoclonal Anti-Aurora-A-Kinase, Biotin conjugate
Clone 35C1
produced in mouse, purified immunoglobulin

Catalog Number **A2606**

Product Description

Monoclonal Anti-Aurora-A Kinase (mouse IgG2b isotype), Biotin conjugate is derived from the hybridoma 35C1 produced by the fusion of mouse myeloma cells (SP2/0-Ag14) and splenocytes from BALB/c mice immunized with recombinant human Aurora-A Kinase (Gene ID: 6790). The antibody is isolated from ascites fluid and conjugated to (+)-Biotinamidohexanoic acid N-hydroxysuccinimide ester.

Monoclonal Anti-Aurora-A Kinase, Biotin conjugate recognizes human[1-3] and mouse[1] Aurora-A Kinase. The antibody may be used in ELISA,[1] immunoblotting (~46 kDa),[1-3] and immunocytochemistry.[1, 2] The antibody does not inhibit kinase activity of Aurora-A kinase.[1]

STK15 oncogene encodes for the Aurora-A Kinase protein that is over-expressed in high-grade tumors. During S-phase to mitosis cell cycle progression, the protein is located at the centrosome. It is involved in centrosome separation, centrosome maturation, bipolar spindle assembly and stability.[1-3] Monopolar spindles are formed in the cell when the expression of Aurora-A kinase is inhibited by siRNA, while over-expression of this protein results in centrosome amplification and polyploidy of the cell, as a consequence of cytokinesis failure.[2] Aurora-A activity is required for the recruitment of CDK-cyclin B1 to the centrosome, which correlates with its activation and the commitment of the cells to mitosis. CDK1 kinase is activated by dephosphorylation at Tyr^{15} by CDC25B. Aurora-A kinase phosphorylates CDC25B both *in vitro* and *in vivo* at Ser^{353}. This phosphorylation occurs at the centrosome during progression from prophase to anaphase. This regulation is important for entry into mitosis.[1-4]

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: ~2 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 extended storage, freeze at –20 ^{0}C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discard if not used within 12 hours.

Product Profile

Immunocytochemistry: a working concentration of 2.5-5 µg/mL is recommended using starved HeLa cells treated with 10% fetal calf serum (FCS).

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Cremet, J.Y., et al., *Mol. Cell. Biochem.*, **243**, 123-131 (2003).
2. Dutertre, S., et al., *J. Cell. Sci.*, **117**, 2523-2531 (2004).
3. Krystyniak, A., et al., *Oncogene*, **25**, 338-348 (2006).
4. Pugacheva, E.N., and Golmis, E.A., *Cell Cycle*, **5**, 384-391 (2006).

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