Product Data Sheet: Aurora A kinase

Cat. No:	MAB-94079
Size:	100 ug
Clone:	1A11
Concentration:	1mg/ml
Host:	Ms
Isotype:	IgG1
Immunogen:	Full length recombinant human aurora A expressed in and purified from E. coli
Reactivity:	Hu, Ho, Cw, Pg, Ch, Rt, Ms
Applications:	Western Blot: 1:100-1:500 Immunocytochemistry: 1:100-1:500 Immunofluorescence: 1:100-1:500 Immunohistochemistry: 1:100-1:500
Molecular Weight:	46kDa
Purification:	Purified
Background:	Aurora proteins are a family of serine/threonine protein kinases which play a key role in the regulation of cell division which were originally discovered in studies of Drosophila (1). Mammalian genomes encode 3 aurora kinases named aurora A, B and C, each containing a variable regulatory domain at the N terminus followed by a catalytic serine/threonine kinase domain which is almost identical between them. As a result it is possible to generate antibodies which react with only one aurora kinase or cross react with two or more other kinases. Aurora A and B are almost ubiquitous in distribution while C is normally only expressed in testis. Aurora A is required for centrosome duplication, entry into mitosis, formation of bipolar spindle and mitotic checkpoint (3). Aurora B is a chromosomal passenger protein and essential for chromosome condensation, kinetochore functions, spindle checkpoint activation and cytokinesis completion (4). Aurora C is normally involved in spermatogenesis, but may also be expressed in many transformed cell lines and tumors and has been less well studied to date (5). The aurora kinases are essential for the progression to cell division and as a result there has been much interest in the development of drugs aimed at inhibiting their activity for use as anticancer agents (6,7). We have made a panel of antibodies to the aurora kinases, concentrating originally on aurora A and B, and we made recombinant full length human aurora constructs of all three to document their potential cross reactivity. MAB-94079 was made against recombinant human aurora A, and was shown to be non-reactive with aurora B or C. As expected the antibody localizes aurora A in spindle poles and mitotic spindles at late mitosis and recognizes the appropriate sized band on extracts of human and rodent cells.
Form:	Liquid
Buffer:	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3
Storage:	Store at 4°C for short term, for longer term at -20°C

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