## Mouse Monoclonal to Aurora B kinase.

### MCA-3F11

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<th>Applications</th>
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<td>Western blot, ICC/IF, IHC</td>
<td>Mouse</td>
<td>IgG2a</td>
<td>38kDa</td>
<td>Hu, Rt, Ms, Bo, Po, Ho, Ck</td>
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### References:

### Background:
Aurora proteins are a family of serine/threonine protein kinases that play a key role in the regulation of cell division. The first Aurora kinase was discovered in Drosophila (1). Mutations of this kinase cause monopolar spindles surrounded by kinase, and the appearance of this was reminiscent of the Aurora borealis at the poles of the earth (1). Mammalian genomes encode 3 Aurora kinases named Aurora A, Aurora B, and Aurora C. All 3 contain a regulatory domain at the N terminus which is quite different between the molecules followed by a catalytic serine/threonine kinase domain which is almost identical between them. To download a sequence alignment of the 3 human Aurora proteins go here. As a consequence antibodies raised against one Aurora family member frequently cross-react with other family members. There is a short C-terminal peptide which is also variable between the three molecules (2). 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 heavily expressed in testis and is involved in spermatogenesis, but is also expressed in many cell lines and cancer cells and has been less well studied to date (5). Aurora A is first associated with centrosomes and then with spindle microtubules whereas Aurora B localizes to the spindle midzone and finally accumulates at the midbody. MCA-3F11 was raised against...
full length recombinant human Aurora B expressed in and purified from E. coli. The antibody was tested for binding to expressed human Aurora A, B and C and shown to react with aurora B specifically (Blot image).