



## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

### Certificate of Analysis and Data Sheet

## MOUSE ANTI AURORA-A KINASE:Biotin

**Catalog No.**  
DS-MB-00102

**Species:**  
Human

**Isotype:**  
Mouse IgG2b

### Description

Aurora related kinase-1 (ARK-1, STK15, Aurora2, Aik1) and -2 (ARK-2, STK12, Aurora1) are centrosome-associated serine/threonine kinases that regulate centrosome separation, bipolar spindle assembly and chromosome segregation during mitosis. ARK-1 and -2 are expressed in the nucleus and localize to distinct portions of mitotic machinery such as the centrosome, spindle poles (ARK-1) and midbody (ARK-2) during mitosis. ARK-1 and -2 transcripts are present at high levels in human thymus and fetal liver. ARK-1 protein has elevated expression in colon carcinoma lines (HT-29, SNU-C2B, COLO 205, SW480, 837 and 948) and accumulates during metaphase in HeLa cells. ARK-2 protein levels are maximal during both S and G2/M phases, whereas ARK-1 protein is degraded after G2/M via the ubiquitin-proteasome pathway. ARK-2 has a unique genetic locus relative to ARK-1, suggesting that these two kinases, with oncogenic potential, have different roles in cell cycle progression. Aurora-A is reported to be overexpressed in many epithelial cancers and is thought to play an important role in tumorigenesis.

### Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blotting	•			
Immunohistology - frozen			•	
Immunohistology - resin			•	
Immunoprecipitation			•	
Flow Cytometry			•	
Immunofluorescence staining	•			Neat - 1/10

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### **Preparation**

This product uses Aurora-A as the immunogen. This antibody was produced from a hybridoma resulting from the fusion of a myeloma with B cells obtained from a mouse immunized with the immunogen. The IgG fraction of tissue culture supernatant was purified by Protein G affinity chromatography. Spleen cells from immunised Balb/c were fused with cells of the SP2/0-Ag14 mouse myeloma cell line.

### **Specificity**

DS-MB-00102 recognises human Aurora-A kinase, a 46kDa serine/threonine kinase involved in mitotic spindle assembly. It specifically recognises an epitope within the non-catalytic N-terminal domain of Aurora-A. It uses Human MCF7 and mouse LLC1 cell lines as the histology positive control tissue. It does not inhibit Aurora-A kinase activity. This product reacts with: Mouse.

Antibody reactivity and working conditions may vary between species.

### **Reconstitution**

Supplied as 0.1 mg of purified IgG conjugated to Biotin – liquid antibody in PBS with pH 7.4, containing 0.09% Sodium Azide and 1% Bovine Serum Albumin. Its final concentration is 0.1 mg/ml. **Please avoid freeze-thaw cycles.**

### **Secondary Antibody Applications**

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	.			1:5000-1:10000

### **Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

### **Reference**

Crement, J. Y. et al. (2003) Preparation and characterization of a human Aurora-A kinase monoclonal antibody. *Molecular and Cellular Biochemistry*. 243: 123 - 131.

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