# abcam

# Product datasheet

# Recombinant mouse Aurora A protein ab60327

### 4 Images

**Description** 

Product name Recombinant mouse Aurora A protein

Biological activity Specific activity: 69 nmol/min/mg.

**Purity** > 90 % SDS-PAGE.

Purity: >90% as determined by densitometry. Affinity purified.

Expression system Baculovirus infected Sf9 cells

Accession P97477

Protein length Full length protein

Animal free No

**Nature** Recombinant

**Species** Mouse

### **Specifications**

Our Abpromise guarantee covers the use of ab60327 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** SDS-PAGE

Functional Studies

Form Liquid

Additional notes <u>ab64311</u> (Myelin Basic Protein protein) can be utilized as a substrate for assessing kinase

activity

#### **Preparation and Storage**

**Stability and Storage** Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCI, 0.00292%

EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

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#### **Function**

Contributes to the regulation of cell cycle progression. Required for normal mitosis. Associates with the centrosome and the spindle microtubules during mitosis and functions in centrosome maturation, spindle assembly, maintenance of spindle bipolarity, centrosome separation and mitotic checkpoint control. Phosphorylates numerous target proteins, including ARHGEF2, BRCA1, KIF2A, NDEL1, PARD3, PLK1 and BORA. Regulates KIF2A tubulin depolymerase activity (By similarity). Required for normal axon formation. Plays a role in microtubule remodeling during neurite extension. Important for microtubule formation and/or stabilization.

#### Tissue specificity

Highly expressed in testis and weakly in skeletal muscle, thymus and spleen. Also highly expressed in colon, ovarian, prostate, neuroblastoma, breast and cervical cancer cell lines.

#### Sequence similarities

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Aurora subfamily. Contains 1 protein kinase domain.

# Post-translational modifications

Activated by phosphorylation at Thr-288; this brings about a change in the conformation of the activation segment. Phosphorylation at Thr-288 varies during the cell cycle and is highest during M phase. Autophosphorylated at Thr-288 upon TPX2 binding. Phosphorylated upon DNA damage, probably by ATM or ATR.

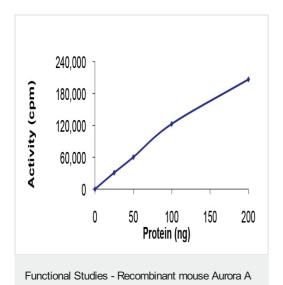
Ubiquitinated by CHFR, leading to its degradation by the proteasome (By similarity). Ubiquitinated by the anaphase-promoting complex (APC), leading to its degradation by the proteasome.

#### **Cellular localization**

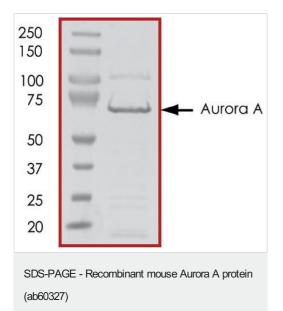
Cytoplasm > cytoskeleton > centrosome. Cytoplasm > cytoskeleton > spindle pole. Detected at the neurite hillock in developing neurons (By similarity). Localizes on centrosomes in interphase cells and at each spindle pole in mitosis.

#### **Images**

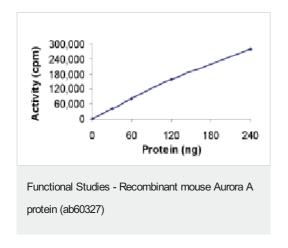
protein (ab60327)



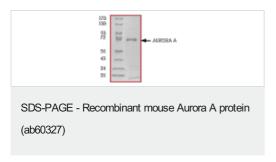
The specific activity of Aurora A (ab60327) was determined to be 78 nmol/min/mg as per activity assay protocol



SDS PAGE analysis of ab60327



Sample Kinase Activity Plot.



ab60327 on SDS-PAGE, MW ~71kDa.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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