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Rabbit Anti-Aurora B antibody

SL2445R

Product Name:	Aurora B
Chinese Name:	有丝分裂激酶B抗体
Alias:	STK-1; serine/threonine kinase 12; aurora-B; aurora-1; aurora kinase B-Sv1; aurora kinase B-Sv2; ARK-2; STK-1; STK1; aurora-related kinase 2; aurora/IPL1-related kinase 2; serine/threonine-protein kinase aurora-B; aurora- and Ipl1-like midbody-associated protein 1; AURKB; AIK2; AIM-1; AIM1; ARK2; AurB; aurkb-sv1; aurkb-sv2; IPL1; STK12; STK5; AIRK2; AURKB_HUMAN.
文献引用 PubMed :	**Specific References(2)**|SL2445R has been referenced in 2 publications. **[IF=13.91]**Ye, Buqing, et al. "Cytosolic carboxypeptidase CCP6 is required for megakaryopoiesis by modulating Mad2 polyglutamylation." The Journal of Experimental Medicine (2014): jem-20141123.**WB;Human**. PubMed:25332286 **[IF=11.47]**Suzuki, Ayumu, et al. "Loss of MAX results in meiotic entry in mouse embryonic and germline stem cells." Nature Communications 7 (2016).**IHC-F;Mouse**. PubMed:27025988
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000Flow-Cyt=3ug/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	39kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Aurora B:51-150/344

Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes a member of the aurora kinase subfamily of serine/threonine kinases. The genes encoding the other two members of this subfamily are located on chromsomes 19 and 20. These kinases participate in the regulation of segregation of chromosomes during mitosis and meiosis through association with microtubules. A pseudogene of this gene is located on chromosome 8. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2012]. **Function:** Serine/threonine-protein kinase component of the chromosomal passenger complex (CPC), a complex that acts as a key regulator of mitosis. The CPC complex has essential functions at the centromere in ensuring correct chromosome alignment and segregation and is required for chromatin-induced microtubule stabilization and spindle assembly. Involved in the bipolar attachment of spindle microtubules to kinetochores and is a key regulator for the onset of cytokinesis during mitosis. Required for central/midzone spindle assembly and cleavage furrow formation. AURKB phosphorylates the CPC complex subunits BIRC5/survivin, CDCA8/borealin and INCENP. Phosphorylation of INCENP leads to increased AURKB activity. Other known AURKB substrates involved in centromeric functions and mitosis are CENPA, DES/desmin, GPAF, KIF2C, NSUN2, RACGAP1, SEPT1, VIM/vimentin, GSG2/Haspin, and histone H3. A positive feedback loop involving GSG2 and AURKB contributes to localization of CPC to centromeres. Phosphorylation of VIM controls vimentin filament segregation in cytokinetic process, whereas histone H3 is phosphorylated at 'Ser-10' and 'Ser-28' during mitosis. A positive feedback between GSG2 and AURKB contributes to CPC localization. AURKB is also required for kinetochore localization of BUB1 and SGOL1. Phosphorylation of p53/TP53 negatively regulates its transcriptional activity. **Subunit:** Component of the chromosomal passenger complex (CPC) composed of at least BIRC5/survivin, CDCA8/borealin, INCENP, AURKB and AURKC. Associates with RACGAP1 during M phase. Interacts with CDCA1, EVI5, JTB, NDC80, PSMA3, SEPT1 and TACC1. Interacts with SPDYC; this interaction may be required for proper localization of active, Thr-232-phosphorylated AURKB form during prometaphase and metaphase. Interacts with p53/TP53. Interacts (via the middle kinase domain) with NOC2L (via the N- and C-terminus domains). **Subcellular Location:** Nucleus. Chromosome. Chromosome, centromere. Cytoplasm, cytoskeleton, spindle. Note=Localizes on chromosome arms and inner centromeres from prophase through

metaphase and then transferring to the spindle midzone and midbody from anaphase through cytokinesis. Colocalized with gamma tubulin in the mid-body. Proper localization of the active, Thr-232-phosphorylated form during metaphase may be dependent upon interaction with SPDYC.

Tissue Specificity:
High level expression seen in the thymus. It is also expressed in the spleen, lung, testis, colon, placenta and fetal liver. Expressed during S and G2/M phase and expression is up-regulated in cancer cells during M phase.

Post-translational modifications:
The phosphorylation of Thr-232 requires the binding to INCENP and occurs by means of an autophosphorylation mechanism. Thr-232 phosphorylation is indispensable for the AURKB kinase activity.
Ubiquitinated by different BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complexes. Ubiquitinated by the BCR(KLHL9-KLHL13) E3 ubiquitin ligase complex, ubiquitination leads to removal from mitotic chromosomes and is required for cytokinesis. During anaphase, the BCR(KLHL21) E3 ubiquitin ligase complex recruits the CPC complex from chromosomes to the spindle midzone and mediates the ubiquitination of AURKB. Ubiquitination of AURKB by BCR(KLHL21) E3 ubiquitin ligase complex may not lead to its degradation by the proteasome.

DISEASE:
Note=Disruptive regulation of expression is a possible mechanism of the perturbation of chromosomal integrity in cancer cells through its dominant-negative effect on cytokinesis.

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

SWISS:
Q96GD4

Gene ID:
9212

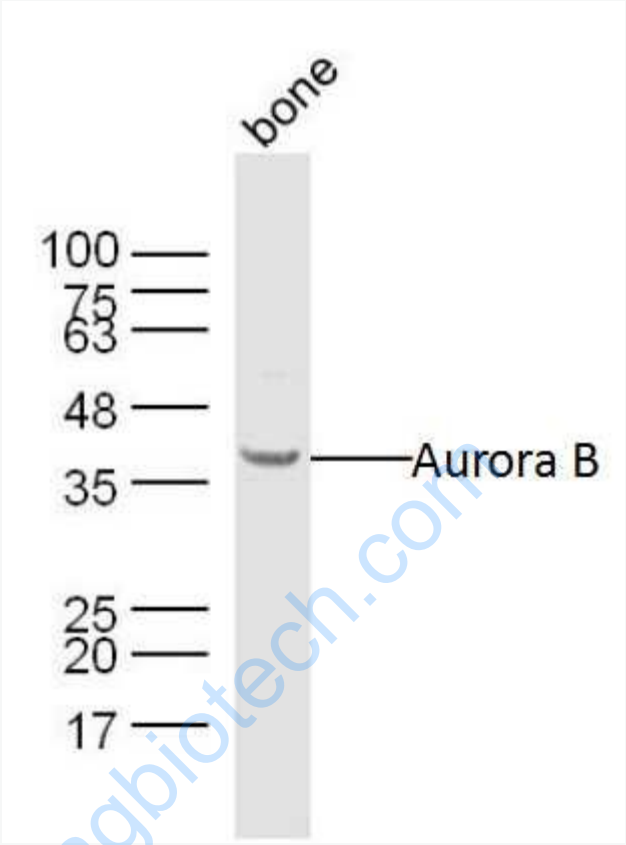
Database links:

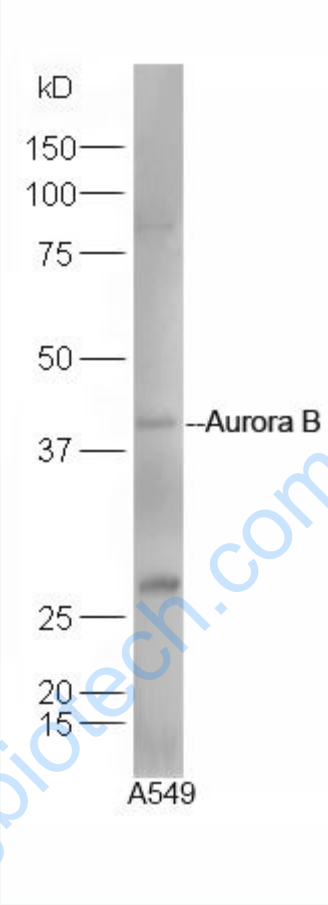
Entrez Gene: 9212 Human

Entrez Gene: 20877 Mouse

Entrez Gene: 114592 Rat

	Omim: 604970 Human SwissProt: Q96GD4 Human SwissProt: O70126 Mouse SwissProt: O55099 Rat Unigene: 442658 Human Unigene: 3488 Mouse Unigene: 10865 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. 细胞的有丝分裂是生物体最基本的生命活动过程,能将复制的基因组精确地分配到下一代子细胞中,在长期的生物进化过程中，生物体形成了一整套完善的监测机制以确保遗传物质精确地分配到子细胞中。 Aurora激酶(极光激酶)是细胞有丝分裂调控网络中的一类重要的丝氨酸/苏氨酸激酶，Aurora酪氨酸激酶B也是丝氨酸/苏氨酸激酶家族成员之一，目前分为aurora A，B及C。

Picture:	 Sample: Bone (Mouse) Lysate at 40 ug Primary: Anti-Aurora B (SL2445R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 39 kD Observed band size: 39 kD



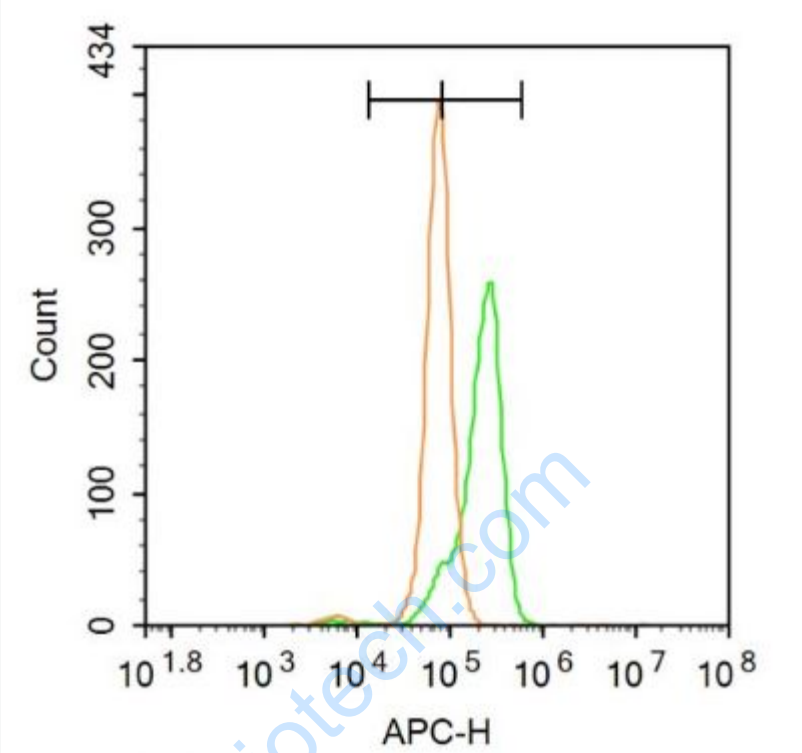
Protein: A549(human) lysate at 30ug;

Primary: rabbit Anti-Aurora B (SL2445R) at 1:300;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(SL2445R) at 1: 5000;

Predicted band size: 39 kD

Observed band size: 39 kD



Blank control: A431.

Primary Antibody (green line): Rabbit Anti-Aurora B antibody (SL2445R)

Dilution: 3µg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 3µg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

	Acquisition of 20,000 events was performed.