# abcam

## Product datasheet

## Anti-Aurora B antibody [EP1009Y] ab45145

ועלשעבע RabMAb

★★★★ 1 Abreviews 24 References 画像数7

#### 製品の概要

製品名 Anti-Aurora B antibody [EP1009Y]

製品の詳細 Rabbit monoclonal [EP1009Y] to Aurora B

由来種 Rabbit

アプリケーション 適用あり: Flow Cyt (Intra), ICC/IF, WB, IHC-P, IP

種交差性 交差種: Human

免疫原 Synthetic peptide within Human Aurora B aa 1-100 (N terminal). The exact sequence is

proprietary.

ポジティブ・コントロール IP: HeLa cell lysate WB: HeLa cell lysate IHC: human endometrium carcinoma ICC: HeLa cells

This product is a recombinant monoclonal antibody, which offers several advantages including: 特記事項

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

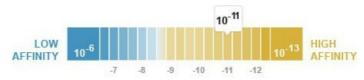
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

## 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

解離定数(KD値)  $K_D = 5.50 \times 10^{-11} M$ 



Learn more about K<sub>D</sub>

**バッファー** pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

精製度 Protein A purified

**ポリ/モノ** モノクローナル **クローン名** EP1009Y

アイソタイプ IgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab45145の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/300.
ICC/IF		1/20. For unpurified version use 1/100 - 1/150 dilution
WB	<b>★★★★☆</b> (1)	Use at an assay dependent concentration. Predicted molecular weight: 39 kDa. For unpurified version use at 1/50000 dilution
IHC-P		1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. For unpurified version use at 1/250-500
IP		Use at an assay dependent concentration. For unpurified version use at 1/20 dilution

## ターゲット情報

機能 May be directly involved in regulating the cleavage of polar spindle microtubules and is a key

regulator for the onset of cytokinesis during mitosis. 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. Phosphorylates 'Ser-10' and 'Ser-28' of histone H3 during mitosis. Required for kinetochore

localization of BUB1 and SGOL1. Interacts with INCENP.

組織特異性 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.

**関連疾患** Note=Disruptive regulation of expression is a possibile mechanism of the perturbation of

chromosomal integrity in cancer cells through its dominant-negative effect on cytokinesis.

配列類似性 Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Aurora subfamily.

Contains 1 protein kinase domain.

翻訳後修飾 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

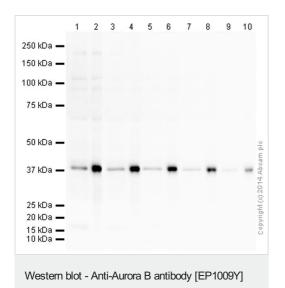
mitotic chromosomes and is required for cytokinesis. During anaphase, the BCR(KLHL21) E3 ubiquitin ligase complex recruits the CPC complex from chromosomes to the spindle midzone and mediates the ubiquitination of AURKB. Ubiquitination of AURKB by BCR(KLHL21) E3 ubiquitin ligase complex may not lead to its degradation by the proteasome.

## 細胞内局在

Nucleus. Chromosome. Chromosome > centromere. Cytoplasm > cytoskeleton > spindle. 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.

#### 画像

(ab45145)



**Lanes 1-2**: Anti-Aurora B antibody [EP1009Y] (ab45145) at 1/1000 dilution

Lanes 3-4: Anti-Aurora B antibody [EP1009Y] (ab45145) at 1/5000 dilution

**Lanes 5-6**: Anti-Aurora B antibody [EP1009Y] (ab45145) at 1/10000 dilution

**Lanes 7-8**: Anti-Aurora B antibody [EP1009Y] (ab45145) at 1/50000 dilution

**Lanes 9-10 :** Anti-Aurora B antibody [EP1009Y] (ab45145) at 1/75000 dilution

Lanes 1 & 3 & 5 & 7 & 9 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lanes 2 & 4 & 6 & 8 & 10 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate Nocodozole Stimulated

Lysates/proteins at 10 µg per lane.

## **Secondary**

**All lanes :** Anti-Rabbit lgG VHH Single Domain (HRP) (<u>ab191866</u>) at 1/10000 dilution

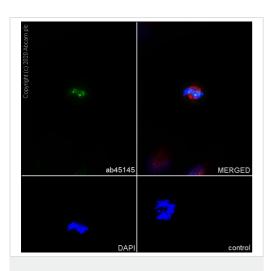
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 39 kDa **Observed band size:** 39 kDa

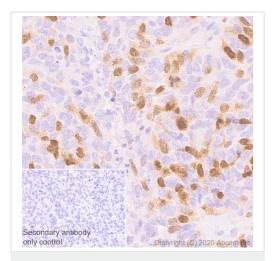
Exposure time: 8 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab45145 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406



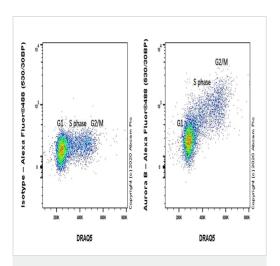
Immunocytochemistry/ Immunofluorescence - Anti-Aurora B antibody [EP1009Y] (ab45145)

Immunocytochemistry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Aurora B with Purified ab45145 at 1:50 dilution (5.4 μg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 μg/ml). Goat anti rabbit lgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 μg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



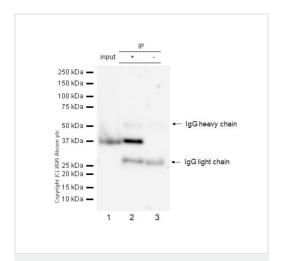
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Aurora B antibody
[EP1009Y] (ab45145)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human endometrium carcinoma tissue sections labeling Aurora B with purified ab45145 at 1/200 dilution (1.35 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-Aurora B antibody [EP1009Y] (ab45145)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Aurora B with Purified ab45145 at 1/300 dilution (0.1  $\mu$ g/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit lgG (Alexa Fluor 488 ,ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal lgG (Left). Unlabeled control - /.



Immunoprecipitation - Anti-Aurora B antibody [EP1009Y] (ab45145)

Purified ab45145 at 1/20 dilution ( $1\mu g$ ) immunoprecipitating Aurora B in HeLa whole cell lysate.

Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg

Lane 2 (+): ab45145 + HeLa whole cell lysate.

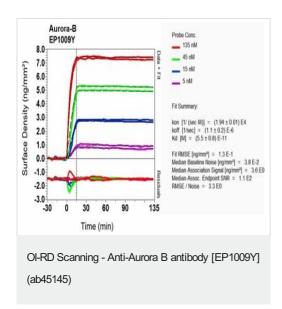
Lane 3 (-): Rabbit monoclonal  $\lg G$  (ab172730) instead of ab45145 in HeLa whole cell lysate.

VeriBlot for IP Detection Reagent (HRP) (<u>ab131366</u>) (1/1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

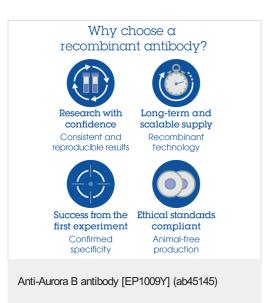
Observed band size: 39 kDa



Equilibrium disassociation constant ( $K_D$ )

Click here to learn more about KD

Learn more about KD



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

#### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.co.jp/abpromise">https://www.abcam.co.jp/abpromise</a> or contact our technical team.

#### Terms and conditions

•	Guarantee only valid for products bought direct from Abcam or one of our authorized distributors
	7