

### Anti-CDK5 antibody [EP715Y] - BSA and Azide free ab220214

敲除验证
重组
RabMAb

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#### 概述

产品名称	Anti-CDK5抗体[EP715Y] - BSA and Azide free
描述	兔单克隆抗体[EP715Y] to CDK5 - BSA and Azide free
宿主	Rabbit
经测试应用	适用于: Flow Cyt (Intra), WB, IP, ICC/IF
种属反应性	与反应: Mouse, Rat, Human 预测可用于: Chicken 
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HeLa whole cell lysate, NIH3T3 whole cell lysate, PC-12 whole cell lysate IP: ab220214 + SH-SY5Y whole cell lysate. ICC/IF: SH-SY5Y (Human neuroblastoma epithelial cell)
常规说明	<p>ab220214 is the carrier-free version of <a href="#">ab40773</a>.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> </ul>

- Animal-free production

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

## 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C. Do Not Freeze.
存储溶液	pH: 7.2 Constituent: PBS
无载体	是
纯度	Protein A purified
克隆	单克隆
克隆编号	EP715Y
同种型	IgG

## 应用

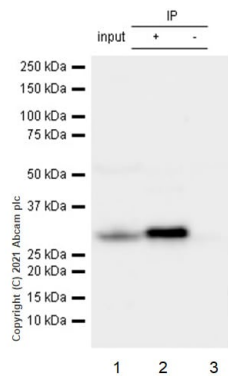
**The Abpromise guarantee**      **Abpromise<sup>™</sup>承诺保证使用ab220214于以下的经测试应用**

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Flow Cyt (Intra)		Use at an assay dependent concentration. <b>ab199376</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Detects a band of approximately 33 kDa (predicted molecular weight: 33 kDa).
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

## 靶标

功能	Probably involved in the control of the cell cycle. Interacts with D1 and D3-type G1 cyclins. Can phosphorylate histone H1, tau, MAP2 and NF-H and NF-M. Also interacts with p35 which activates the kinase.
序列相似性	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain.
细胞定位	Cytoplasm. Cell projection > lamellipodium. Cell projection > growth cone. In axonal growth cone with extension to the peripheral lamellipodia.



Immunoprecipitation - Anti-CDK5 antibody [EP715Y]  
- BSA and Azide free (ab220214)

This data was developed using ab220214, the same antibody clone in a different buffer formulation.

Purified ab220214 at 1:20 dilution (1µg) immunoprecipitating CDK5 in SH-SY5Y whole cell lysate.

Lane 1 (input): SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysate 10µg.

Lane 2 (+): ab220214 + SH-SY5Y whole cell lysate.

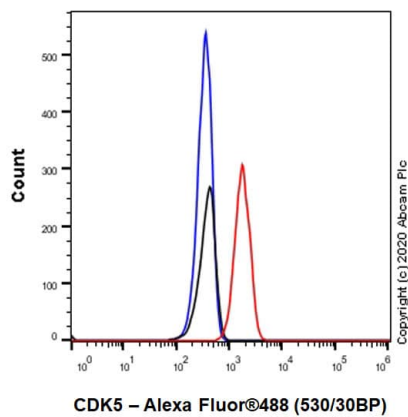
Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of [ab40773](#) in SH-SY5Y whole cell lysate.

VeriBlot for IP Detection Reagent (HRP)<sup>™</sup>([ab131366](#)) (1:1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

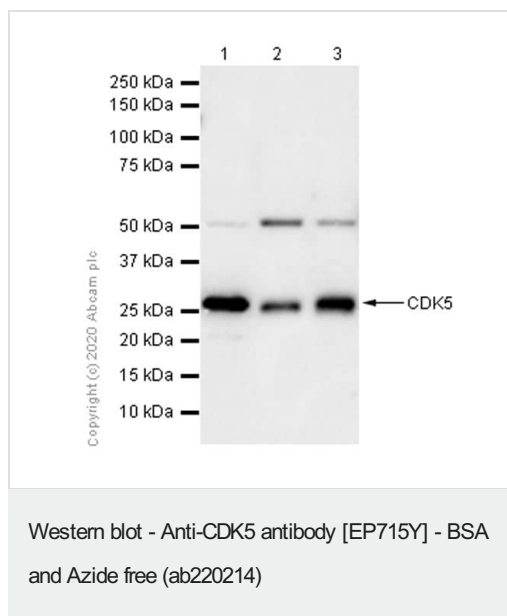
Observed band size: 33 kDa



Flow Cytometry (Intracellular) - Anti-CDK5 antibody  
[EP715Y] - BSA and Azide free (ab220214)

This data was developed using ab220214, the same antibody clone in a different buffer formulation.

Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling CDK5 with Purified ab220214 at 1:20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor<sup>™</sup> 488, [ab150077](#)) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



**All lanes :** Anti-CDK5 antibody [EP715Y] ([ab40773](#)) at 1/2000 dilution (Purified)

**Lane 1 :** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

**Lane 2 :** NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate

**Lane 3 :** PC-12 (Rat adrenal gland pheochromocytoma ) whole cell lysate

Lysates/proteins at 20 µg per lane.

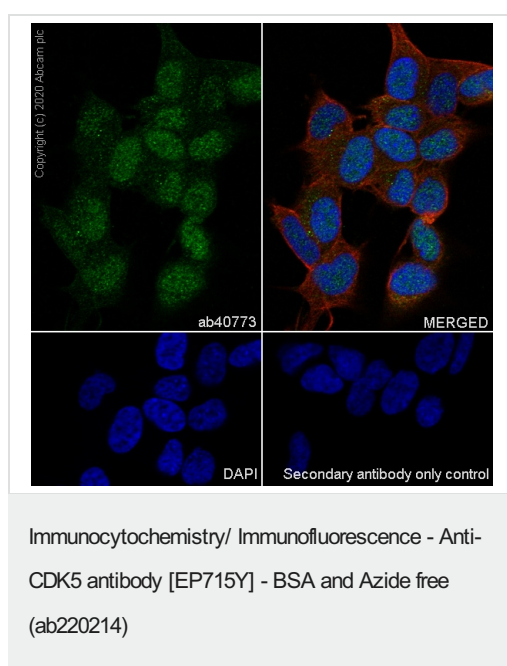
## Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 33 kDa

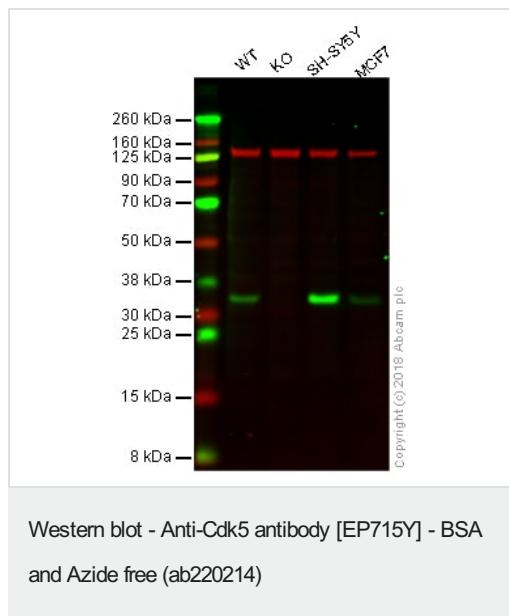
**Observed band size:** 33 kDa

Blocking and dilution buffer: 5% NFDM/TBST.



This data was developed using [ab40773](#), the same antibody clone in a different buffer formulation.

Immunocytochemistry analysis of SH-SY5Y (Human neuroblastoma epithelial cell) cells labeling CDK5 with Purified [ab40773](#) at 1/50 dilution (4.6 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 IgG (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.



**All lanes :** Anti-CDK5 antibody [EP715Y] ([ab40773](#)) at 1/2000 dilution (Unpurified)

**Lane 1 :** Wild-type HAP1 whole cell lysate

**Lane 2 :** CDK5 knockout HAP1 whole cell lysate

**Lane 3 :** SHSY5Y whole cell lysate

**Lane 4 :** MCF7 whole cell lysate

Lysates/proteins at 20 µg per lane.

**Predicted band size:** 33 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab40773](#)).

**Lanes 1 - 4:** Merged signal (red and green). Green - [ab40773](#) observed at 33 kDa. Red - loading control, [ab130007](#), observed at 130 kDa.

[ab40773](#) was shown to specifically react with Cdk5 in wild-type HAP1 cells as signal was lost in CDK5 knockout cells. Wild-type and CDK5 knockout samples were subjected to SDS-PAGE. Ab40773 and [ab130007](#) (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/2000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed [ab216773](#) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed [ab216776](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Cdk5 antibody [EP715Y] - BSA and Azide free  
(ab220214)

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

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