

Product datasheet

Anti-CDK5 antibody [EP715Y] ab40773


KO **VALIDATED**

Recombinant

RabMAb[®]

★★★★☆ **7 Abreviews** **34 References** [6 Images](#)

Overview

Product name	Anti-CDK5 antibody [EP715Y]
Description	Rabbit monoclonal [EP715Y] to CDK5
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IP, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Chicken 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa whole cell lysate (ab150035), NIH3T3 whole cell lysate, PC-12 whole cell lysate ICC/IF: SH-SY5Y (Human neuroblastoma epithelial cell)
General notes	<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>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP715Y
Isotype	IgG

Applications

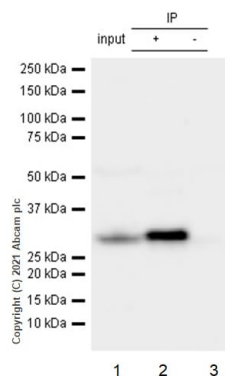
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab40773 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/20. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (5)	1/2000. Detects a band of approximately 33 kDa (predicted molecular weight: 33 kDa).
IP		1/20.
ICC/IF		1/50.

Target

Function	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.
Sequence similarities	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain.
Cellular localization	Cytoplasm. Cell projection > lamellipodium. Cell projection > growth cone. In axonal growth cone with extension to the peripheral lamellipodia.

Images



Immunoprecipitation - Anti-CDK5 antibody [EP715Y]
(ab40773)

Purified ab40773 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 (+): ab40773 + SH-SY5Y whole cell lysate.

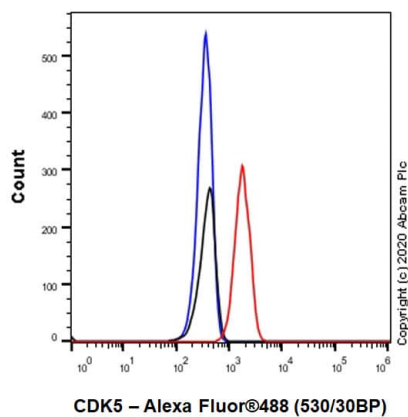
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab40773 in SH-SY5Y whole cell lysate.

VeriBlot for IP Detection Reagent (HRP)TM (**ab131366**) (1:1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

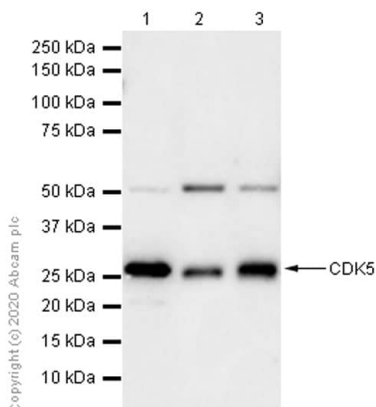
Observed band size: 33 kDa



Flow Cytometry (Intracellular) - Anti-CDK5 antibody
[EP715Y] (ab40773)

Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling CDK5 with Purified ab40773 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 FluorTM 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).



Western blot - Anti-CDK5 antibody [EP715Y] (ab40773)

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

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.

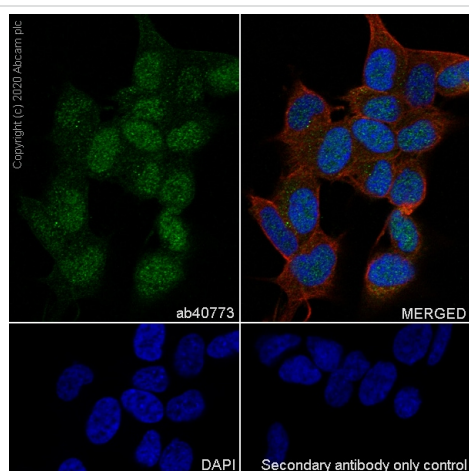
Secondary

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

Predicted band size: 33 kDa

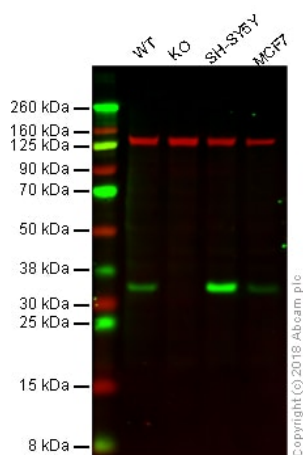
Observed band size: 33 kDa

Blocking and dilution buffer: 5% NFDM/TBST.



Immunocytochemistry/ Immunofluorescence - Anti-CDK5 antibody [EP715Y] (ab40773)

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.



Western blot - Anti-Cdk5 antibody [EP715Y]
(ab40773)

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

Observed band size: 33 kDa

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] (ab40773)

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