

Product datasheet

Anti-CDK1 (phospho Y15) + CDK2 (phospho Y15) + CDK3 (phospho Y15) + CDK5 (phospho Y15) antibody [EPR ab133463

Recombinant RabMAb

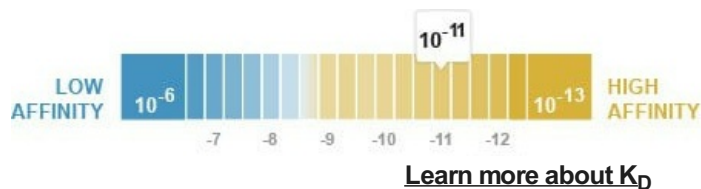
★★★★★ [3 Abreviews](#) [14 References](#) [15 Images](#)

Overview

Product name	Anti-CDK1 (phospho Y15) + CDK2 (phospho Y15) + CDK3 (phospho Y15) + CDK5 (phospho Y15) antibody [EPR]
Description	Rabbit monoclonal [EPR7875] to CDK1 (phospho Y15) + CDK2 (phospho Y15) + CDK3 (phospho Y15) + CDK5 (phospho Y15)
Host species	Rabbit
Specificity	The antibody will cross-react with phosphorylated CDK1 (pY15), CDK2 (pY15), CDK3 (pY15) and CDK5 (pY15) but not with non-phosphorylated CDK1, CDK2, CDK3 and CDK5. Please see our ELISA results on the images section.
Tested applications	Suitable for: WB, IHC-P, ELISA, Dot blot
Species reactivity	Reacts with: Mouse, Rat, Human, Recombinant fragment
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa cell lysate treated with UV, human colon, C6 cell lysate, NIH/3T3 cell lysate, Saso2 cells, human breast carcinoma tissue
General notes	<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. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	K _D = 4.10 x 10 ⁻¹¹ M



Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7875
Isotype	IgG

Applications

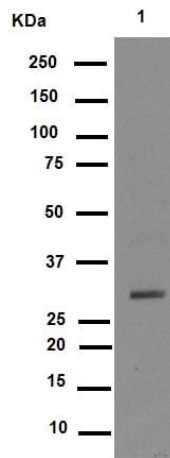
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133463 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	1/1000 - 1/2000. Detects a band of approximately 34 kDa (predicted molecular weight: 34 kDa).
IHC-P	★★★★★ (1)	1/50 - 1/75. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ELISA		Use at an assay dependent concentration.
Dot blot		1/1000.

Target

Cellular localization	CDK1: Nucleus. CDK5: Cytoplasm. Cell projection > lamellipodium. Cell projection > growth cone. In axonal growth cone with extension to the peripheral lamellipodia.
Form	CDK1: CDK1 can be located to the Nucleus, cytoplasm and Mitochondria. It's cytoplasmic during interphase and reversibly translocated from cytoplasm to the nucleus when phosphorylated before G2-M transition when associated with cyclin-B1. Accumulates in mitochondria in G2-arrested cells upon DNA-damage.

Images



Western blot - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

Anti-CDK1 (phospho Y15) + CDK2 (phospho Y15) + CDK3 (phospho Y15) + CDK5 (phospho Y15) antibody [EPR (ab133463) at 1/1000 dilution (purified) + HeLa cell lysate treated with UV at 10 μ g

Secondary

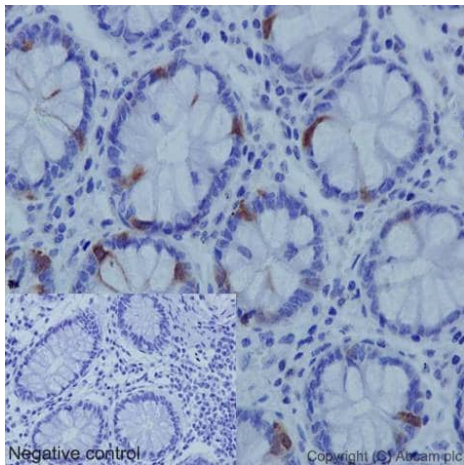
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 34 kDa

Observed band size: 34 kDa

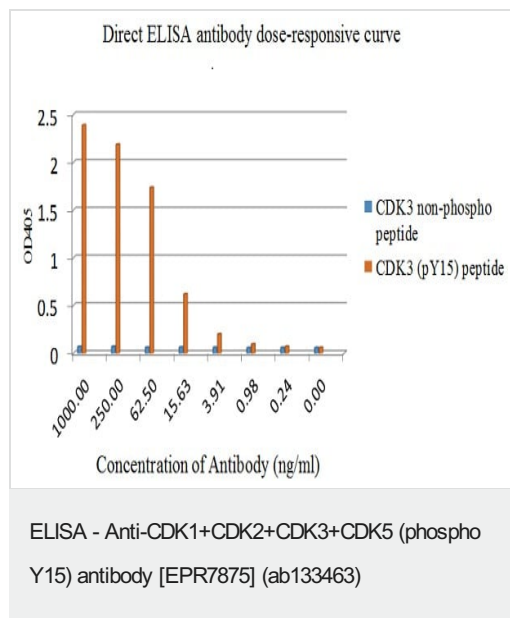
Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST

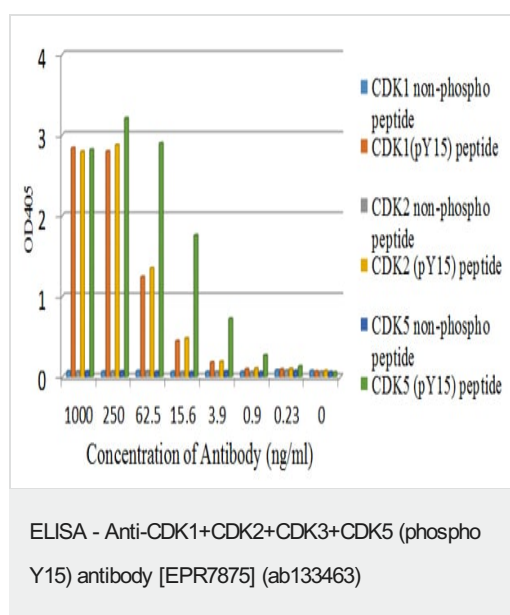


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

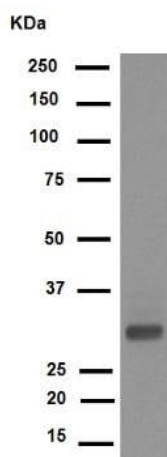
Immunohistochemical staining of paraffin embedded human colon with purified ab133463 at a working dilution of 1 in 75. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Direct ELISA antibody dose-response curve using purified ab133463 at 0-1000 ng/ml. Antigen concentration of 1000 ng/mL. An alkaline phosphatase-conjugated goat anti-rabbit IgG (H+L) (1/2500) was used as the secondary antibody.



Direct ELISA antibody dose-response curve using purified ab133463 at 0-1000 ng/ml. Antigen concentration of 1000 ng/mL. An alkaline phosphatase-conjugated goat anti-rabbit IgG (H+L) (1/2500) was used as the secondary antibody.



Western blot - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

Anti-CDK1 (phospho Y15) + CDK2 (phospho Y15) + CDK3 (phospho Y15) + CDK5 (phospho Y15) antibody [EPR (ab133463)] at 1/2000 dilution (purified) + C6 cell lysate at 10 µg

Secondary

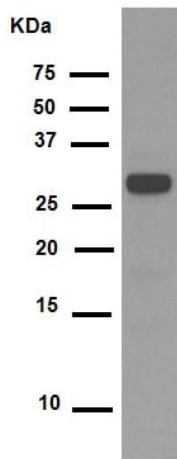
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 34 kDa

Observed band size: 34 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Western blot - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

Anti-CDK1 (phospho Y15) + CDK2 (phospho Y15) + CDK3 (phospho Y15) + CDK5 (phospho Y15) antibody [EPR (ab133463)] at 1/2000 dilution (purified) + NIH/3T3 cell lysate at 10 µg

Secondary

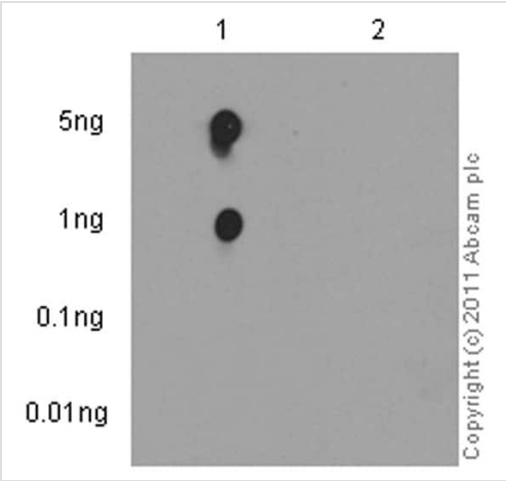
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 34 kDa

Observed band size: 34 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST

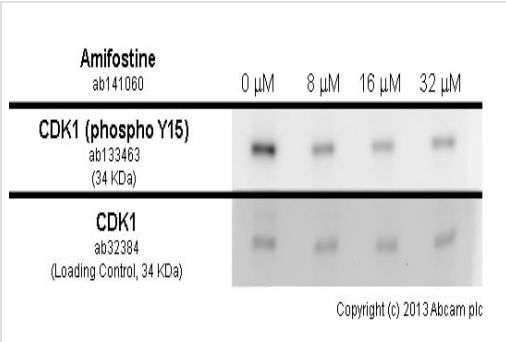


Dot Blot - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

Dot blot analysis of CDK1+CDK2+CDK3+CDK5 (pY15) phosphopeptide (lane 1) and CDK1+CDK2+CDK3+CDK5 non-phosphopeptide (lane 2) labelling CDK1+CDK2+CDK3+CDK5 (phospho Y15) with unpurified ab133463 at a dilution of 1/1000. A peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/2500).

Blocking and dilution buffer: 5% NFDM/TBST.

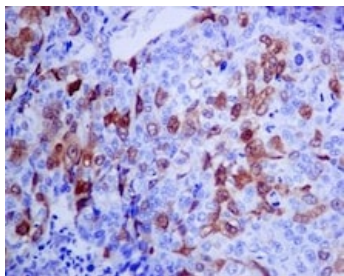
Exposure time: 10 seconds.



Western blot - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

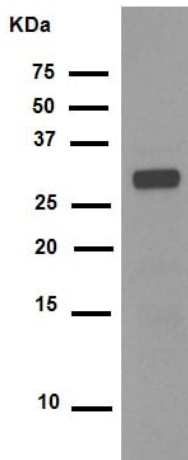
Saso2 cells were incubated at 37°C for 24 hours with vehicle control (0 μM) and different concentrations of Amifostine (**ab141060**). Decreased expression of CDK1 (phospho Y15) (unpurified ab133463) in Saso2 cells correlates with an increase in Amifostine concentration, as described in literature.

Whole cell lysates were prepared with RIPA buffer (containing protease inhibitors and sodium orthovanadate), 10μg of each were loaded on the gel and the WB was run under reducing conditions. After transfer the membrane was blocked for an hour using 5% BSA before being incubated with unpurified ab133463 at 1 μg/ml and **ab32384** at 1 μg/ml overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP (**ab97051**) at 1/10000 and visualised using ECL development solution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

Immunohistochemical analysis of paraffin embedded human breast carcinoma tissue labelling CDK1+CDK2+CDK3+CDK5 with unpurified ab133463 at 1/50 dilution. Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

Anti-CDK1 (phospho Y15) + CDK2 (phospho Y15) + CDK3 (phospho Y15) + CDK5 (phospho Y15) antibody [EPR (ab133463) at 1/1500 dilution (unpurified) + NIH/3T3 cell lysate at 1/1000 dilution

Secondary

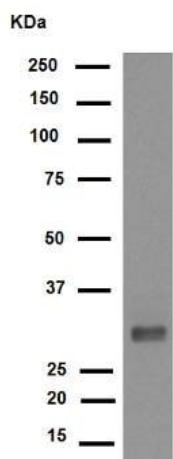
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 34 kDa

Observed band size: 34 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Western blot - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

Anti-CDK1 (phospho Y15) + CDK2 (phospho Y15) + CDK3 (phospho Y15) + CDK5 (phospho Y15) antibody [EPR (ab133463) at 1/1500 dilution (unpurified) + C6 cell lysate at 10 µg

Secondary

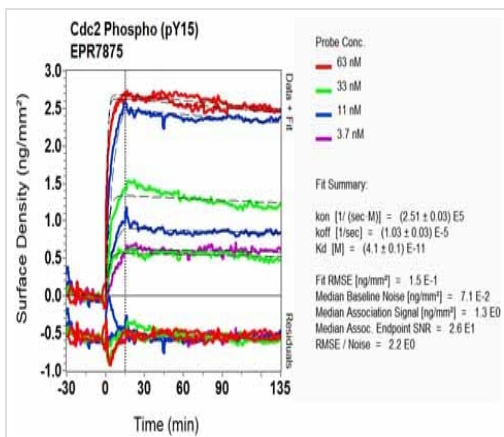
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 34 kDa

Observed band size: 34 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST

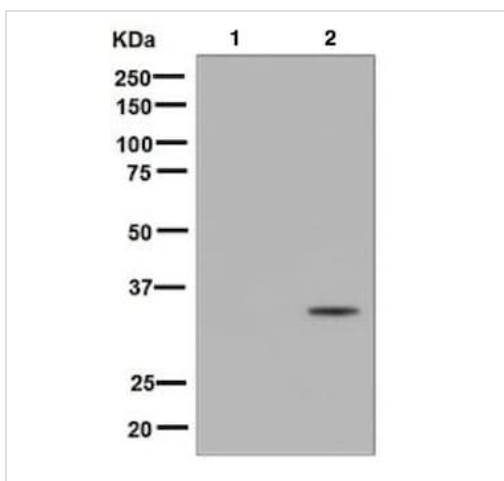


SPR Scanning - Anti-CDK1 + CDK2 + CDK3 +
CDK5 (phospho Y15) antibody [EPR7875]
(ab133463)

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)



Western blot - Anti-CDK1+CDK2+CDK3+CDK5
(phospho Y15) antibody [EPR7875] (ab133463)

All lanes : Anti-CDK1 (phospho Y15) + CDK2 (phospho Y15) +
CDK3 (phospho Y15) + CDK5 (phospho Y15) antibody [EPR
(ab133463) at 1/1000 dilution (unpurified)

Lane 1 : HeLa cell lysate

Lane 2 : HeLa cell lysate treated with UV

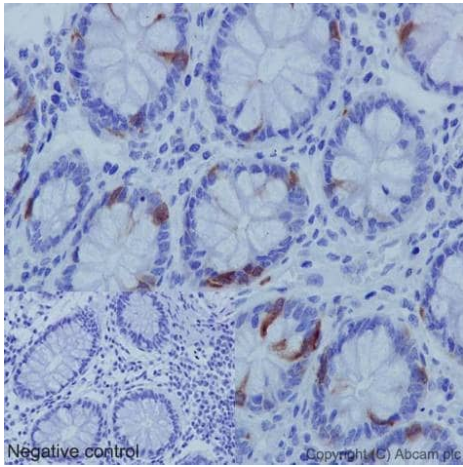
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit IgG at 1/2000 dilution

Predicted band size: 34 kDa

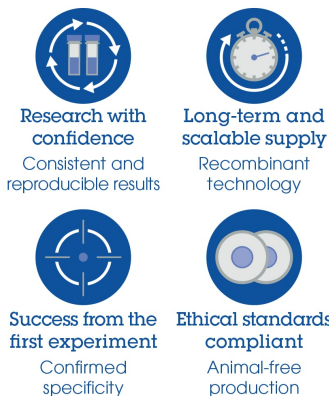
Observed band size: 34 kDa



Immunohistochemical staining of paraffin embedded human colon with unpurified ab133463 at a working dilution of 1 in 50. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDK1+CDK2+CDK3+CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

Why choose a recombinant antibody?



Anti-CDK1 + CDK2 + CDK3 + CDK5 (phospho Y15) antibody [EPR7875] (ab133463)

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

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