# abcam

### Product datasheet

## Anti-Cyclin A2 antibody [EPRR19346-64] ab211735

Recombinant RabMAb

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Overview

Product name Anti-Cyclin A2 antibody [EPRR19346-64]

**Description** Rabbit monoclonal [EPRR19346-64] to Cyclin A2

Host species Rabbit

Tested applications Suitable for: ICC/IF, IP, IHC-P, WB

Species reactivity Reacts with: Human

**Immunogen** Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: MCF7, HeLa, K562, SW480 and HEK-293 whole cell lysates; human fetal liver and fetal

kidney lysates. IHC-P: Human tonsil, colon, colon cancer, cervix cancer and endometrial cancer

tissues. ICC/IF: HeLa and K562 cells. IP: HeLa whole cell lysate.

General notes This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

Improved sensitivity and specificityLong-term security of supply

- 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**.

**Properties** 

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

**Storage buffer** pH: 7.2

Preservative: 0.01% Sodium azide

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

Purity Protein A purified

**Clonality** Monoclonal

Clone number EPRR19346-64

1

**Isotype** IgG

#### **Applications**

The Abpromise guarantee

Our <u>Abpromise guarantee</u> covers the use of ab211735 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  |
|-------------|-----------------|--|
| ICC/IF      | **** <u>(1)</u> | 1/250.   |
| IP          |                 | 1/30.  |
| IHC-P       |                 | 1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |
| WB          | ****(1)         | 1/1000. Detects a band of approximately 50 kDa (predicted molecular weight: 49 kDa).                                       |

#### **Target**

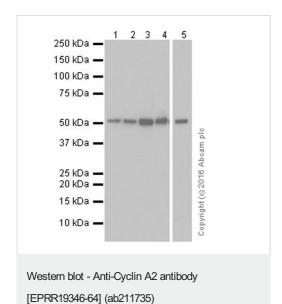
**Function** Essential for the control of the cell cycle at the G1/S (start) and the G2/M (mitosis) transitions.

**Sequence similarities**Belongs to the cyclin family. Cyclin AB subfamily.

**Developmental stage** Accumulates steadily during G2 and is abruptly destroyed at mitosis.

Cellular localization Nucleus. Cytoplasm. Cytoplasmic when associated with SCAPER.

#### **Images**



Lanes 1-4: Anti-Cyclin A2 antibody [EPRR19346-64] (ab211735) at 1/1000 dilution

**Lane 5**: Anti-Cyclin A2 antibody [EPRR19346-64] (ab211735) at 1/10000 dilution

**Lane 1 :** MCF7 (Human breast adenocarcinoma cell line) whole cell lysate

**Lane 2**: HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 3 :** K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate

**Lane 4 :** SW480 (Human colorectal adenocarcinoma cell line) whole cell lysate

**Lane 5**: HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

All lanes: Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at

1/100000 dilution

**Predicted band size:** 49 kDa **Observed band size:** 50 kDa

Exposure time: 3 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

1 2
250 kDa —
150 kDa —
150 kDa —
75 kDa —
37 kDa —
25 kDa —
20 kDa —
15 kDa —
10 kDa —
10 kDa —

Western blot - Anti-Cyclin A2 antibody

[EPRR19346-64] (ab211735)

All lanes: Anti-Cyclin A2 antibody [EPRR19346-64] (ab211735) at

1/1000 dilution

Lane 1 : Human fetal liver lysate

Lane 2 : Human fetal kidney lysate

Lysates/proteins at 10 µg per lane.

### Secondary

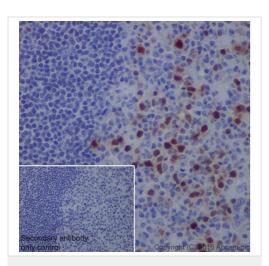
All lanes: Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to

the non-reduced form of IgG at 1/10000 dilution

**Predicted band size:** 49 kDa **Observed band size:** 50 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1: 30 seconds; Lane 2: 3 minutes.

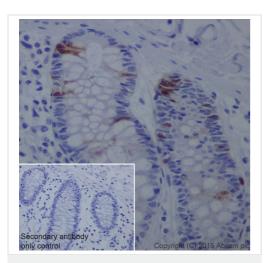


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cyclin A2 antibody
[EPRR19346-64] (ab211735)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling Cyclin A2 with ab211735 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear and weak cytoplasmic staining on germinal center cells of human tonsil tissue is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

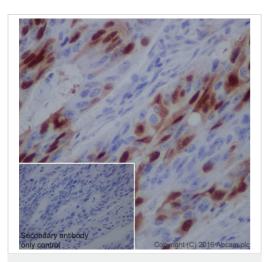


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cyclin A2 antibody
[EPRR19346-64] (ab211735)

Immunohistochemical analysis of paraffin-embedded hjuman colon tissue labeling Cyclin A2 with ab211735 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear and weak cytoplasmic staining on a small proportion of epithelial cells of human colon tissue is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

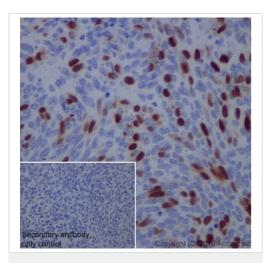


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cyclin A2 antibody
[EPRR19346-64] (ab211735)

Immunohistochemical analysis of paraffin-embedded human colon cancer tissue labeling Cyclin A2 with ab211735 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear and weak cytoplasmic staining on some tumor cells of human colon cancer tissue is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

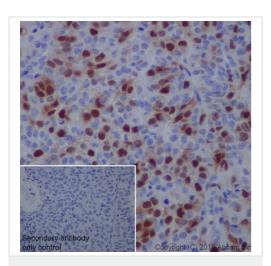


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cyclin A2 antibody
[EPRR19346-64] (ab211735)

Immunohistochemical analysis of paraffin-embedded human cervix cancer tissue labeling Cyclin A2 with ab211735 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear and weak cytoplasmic staining on some tumor cells of human cervix cancer tissue is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

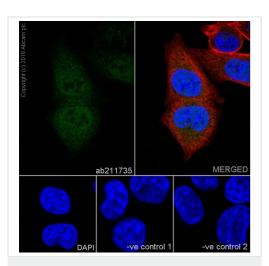


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cyclin A2 antibody
[EPRR19346-64] (ab211735)

Immunohistochemical analysis of paraffin-embedded human endometrial cancer tissue labeling Cyclin A2 with ab211735 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear and weak cytoplasmic staining on some tumor cells of human endometrial cancer tissue is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



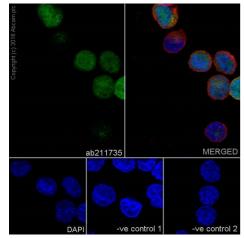
Immunocytochemistry/ Immunofluorescence - Anti-Cyclin A2 antibody [EPRR19346-64] (ab211735)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling Cyclin A2 with ab211735 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and cytoplasmic staining on HeLa cell line. The nuclear counter stain is DAPI (blue).

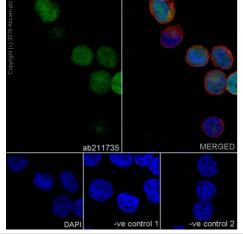
Tubulin is detected with Anti-alpha Tubulin mouse MAb (<u>ab7291</u>) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 594) (<u>ab150120</u>) secondary antibody at 1/1000 dilution (red).

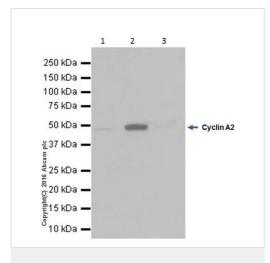
The negative controls are as follows:

- -ve control 1: ab211735 at 1/250 dilution followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) secondary antibody at 1/1000 dilution.
- -ve control 2: Anti-alpha Tubulin mouse MAb (<u>ab7291</u>) at 1/1000 dilution followed by Goat Anti-Rabbit lgG H&L (Alexa Fluor<sup>®</sup> 488) (<u>ab150077</u>) secondary antibody at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Cyclin A2 antibody [EPRR19346-64] (ab211735)





Immunoprecipitation - Anti-Cyclin A2 antibody [EPRR19346-64] (ab211735)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized K562 (Human chronic myelogenous leukemia cell line from bone marrow) cells labeling Cyclin A2 with ab211735 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and cytoplasmic staining on K562 cell line. The nuclear counter stain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin mouse MAb (ab7291) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) secondary antibody at 1/1000 dilution (red).

The negative controls are as follows:

-ve control 1: ab211735 at 1/250 dilution followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) secondary antibody at 1/1000 dilution.

-ve control 2: Anti-alpha Tubulin mouse MAb (ab7291) at 1/1000 dilution followed by Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

Cyclin A2 was immunoprecipitated from 0.35 mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab211735 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab211735 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10,000 dilution

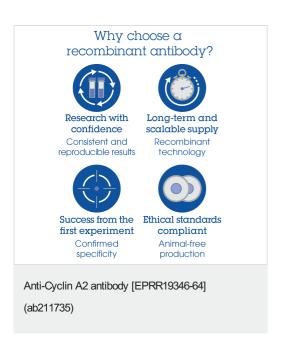
Lane 1: HeLa whole cell lysate 10ug (Input).

Lane 2: ab211735 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab211735 in HeLa whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.



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