abcam

Product datasheet

Anti-Cyclin A2 antibody [E399] - BSA and Azide free ab247261



7 Images

Overview

Product name Anti-Cyclin A2 antibody [E399] - BSA and Azide free

Description Rabbit monoclonal [E399] to Cyclin A2 - BSA and Azide free

Host species Rabbit

Tested applications Suitable for: Flow Cyt, WB, IP, ICC/IF

Species reactivity Reacts with: Human

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Epitope ab247261 reacts with an epitope located in the N terminal region of Cyclin A2

Positive control IP: K-562 whole cell lysate. WB: HeLa untreated, HeLa treated G1/S phase, K562 and HeLa cell

lysate

General notes ab247261 is the carrier-free version of ab32498.

> 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.

Our carrier-free 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.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cellbased assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

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

- 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.

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer pH: 7.2

Constituent: PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal

Clone number E399
Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab247261 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		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 48 kDa.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

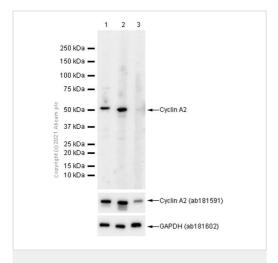
Target

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

Sequence similaritiesBelongs to the cyclin family. Cyclin AB subfamily.

Developmental stageAccumulates steadily during G2 and is abruptly destroyed at mitosis. **Cellular localization**Nucleus. Cytoplasm. Cytoplasmic when associated with SCAPER.

Images



Western blot - Anti-Cyclin A2 antibody [E399] - BSA and Azide free (ab247261)

All lanes : Anti-Cyclin A2 antibody [E399] (<u>ab32498</u>) at 1/1000 dilution (Purified)

Lane 1 : HeLa (Human epithelial cell line from cervix adenocarcinoma) lysate; Untreated, asynchronous cells (ab136811)

Lane 2 : HeLa (Human epithelial cell line from cervix adenocarcinoma) lysate; G1/S arrested cells (thymidine treatment) (ab136811)

Lane 3: HeLa (Human epithelial cell line from cervix adenocarcinoma) lysate; G2/M arrested cells (sequential thymidine and nocodazole treatments) (ab136811)

Secondary

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

Predicted band size: 48 kDa **Observed band size:** 50 kDa

Cyclin A2 is down regulated at the G2/M phase.



Western blot - Anti-Cyclin A2 antibody [E399] - BSA and Azide free (ab247261)

All lanes : Anti-Cyclin A2 antibody [E399] (ab32498) at 1/2000 dilution (Purified)

Lane 1 : K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate

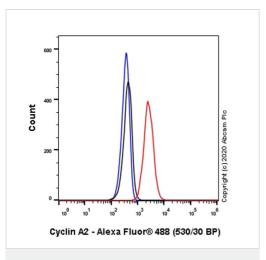
Lane 2 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Secondary

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

Predicted band size: 48 kDa **Observed band size:** 50 kDa

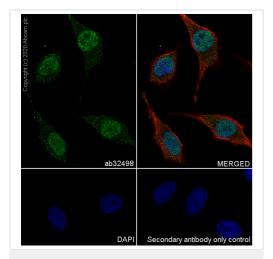
The smaller band is due to a tissue-specific splice variant(PMID 22745723). The band of 35kDa maybe the cleaved form(PMID: 12176996).



Flow Cytometry - Anti-Cyclin A2 antibody [E399] - BSA and Azide free (ab247261)

This data was developed using ab247261, the same antibody clone in a different buffer formulation.

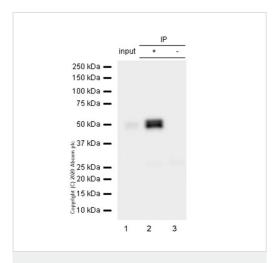
Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling Cyclin A2 with Purified ab247261 at 1:30 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor™ 488, ab150077) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-Cyclin A2 antibody [E399] - BSA and Azide free (ab247261)

This data was developed using <u>ab32498</u>, the same antibody clone in a different buffer formulation.

Immunocytochemistry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Cyclin A2 with Purified <u>ab32498</u> at 1/50 dilution (5.66 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, <u>ab150077</u>) 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.



Immunoprecipitation - Anti-Cyclin A2 antibody [E399] - BSA and Azide free (ab247261)

in a different buffer formulation.

Purified **ab32498** at 1/20 dilution (1µg) immunoprecipitating Cyclin

This data was developed using ab32498, the same antibody clone

Purified $\underline{ab32498}$ at 1/20 dilution (1µg) immunoprecipitating Cyclin A2 in K-562 whole cell lysate.

Lane 1 (input): K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate 10µg

Lane 2 (+): <u>ab32498</u> + K-562 whole cell lysate.

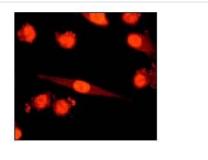
Lane 3 (-): Rabbit monoclonal $\lg G$ (<u>ab172730</u>) instead of <u>ab32498</u> in K-562 whole cell lysate.

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

Blocking Buffer and concentration: 5% NFDM/TBST.

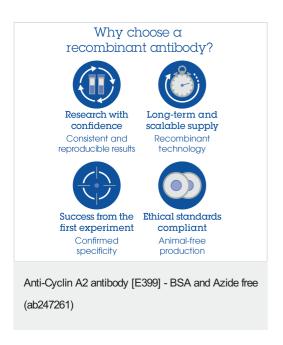
Diluting buffer and concentration: 5% NFDM/TBST.

Observed band size: 50 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Cyclin A2 antibody [E399] - BSA and Azide free (ab247261)

This data was developed using <u>ab32498</u>, the same antibody clone in a different buffer formulation.lmmunofluorescent analysis of cyclin A expression in HeLa cells using 1/250 <u>ab32498</u>.



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