

Datasheet for K911**Cyclin Antibody Sampler Kit****Overview**

Description:	Cylin Antibody Sampler Kit - K911
Item No.:	K911
Size:	1 Kit
Applications:	IHC, WB

Product Details**Background:**

Cyclin A is a member of the cyclin family. Cyclin A binds to S phase Cdk2 and is required for the cell to progress through the S phase. Cyclin A/ Cdk2 is inhibited by the complex p21CIP. Cyclin B1 is a regulatory protein involved in mitosis. The gene product forms a complex with p34 (cdc2) to form the maturation-promoting factor (MPF). Two alternative transcripts have been found, a constitutively expressed transcript and a cell cycle-regulated transcript that is expressed predominantly during G2/M phase. The different transcripts result from the use of alternate transcription initiation sites.

Cyclin D1 (also known as G1/S-specific cyclin D1, PRAD1 oncogene, BCL-1 oncogene, and PRAD1: parathyroid adenomatosis 1) is encoded by a gene that belongs to the highly conserved cyclin family. Cyclins are characterized by a dramatic periodicity in protein abundance throughout the cell cycle and function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns, which contribute to the temporal coordination of each mitotic event. Cyclin D1 forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activity is required for cell cycle G₁/S transition. This protein has been shown to interact with tumor suppressor protein Rb and the expression of this gene is regulated positively by Rb. Mutations, amplification and overexpression of this gene, which alters cell cycle progression, are observed frequently in a variety of tumors and may contribute to tumorigenesis.

Cyclin E is a member of the cyclin family. Cyclin E binds to the G1 phase Cdk2, which is required for the transition from G1 to S phase of the cell cycle that determines cell division. The Cyclin E/CDK2 complex phosphorylates p27Kip1, tagging it for degradation, thus promoting expression of Cyclin A, allowing progression to S phase.

Anti-Cyclin Antibodies are ideal for investigators involved in Cell Signaling, cell biology and Signal Transduction research.

Synonyms:	Anti-Cyclin A Antibody, Anti-Cyclin B1 Antibody, Anti-Cyclin D1 Antibody, Anti-Cyclin E Antibody, Goat Anti-Rabbit IgG Antibody, antibody sample kit
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Application Details

Tested Applications:	IHC, WB
Application Note:	Each kit contains one unit of the following products: (100 µL) Anti-Cyclin A (RABBIT) Antibody (100 µL) Anti-Cyclin B1 (RABBIT) Antibody (100 µL) Anti-Cyclin D1 (RABBIT) Antibody (100 µL) Anti-Cyclin E (RABBIT) Antibody (100 µg) Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:2,000 - 1:10,000
IP:	1:100
WB:	1:500 - 1:5,000

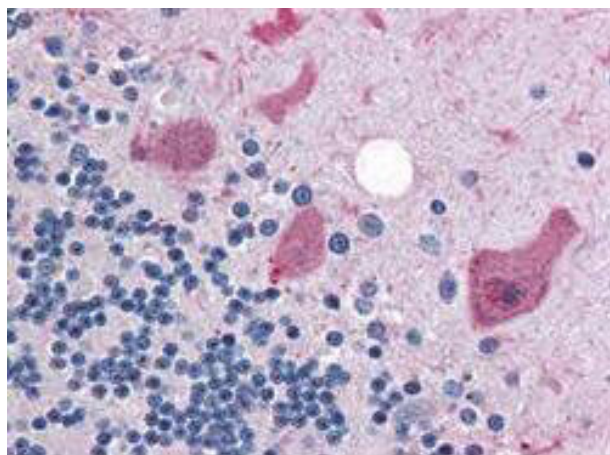
Formulation

Physical State:	Liquid (sterile filtered)
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Shipping & Handling

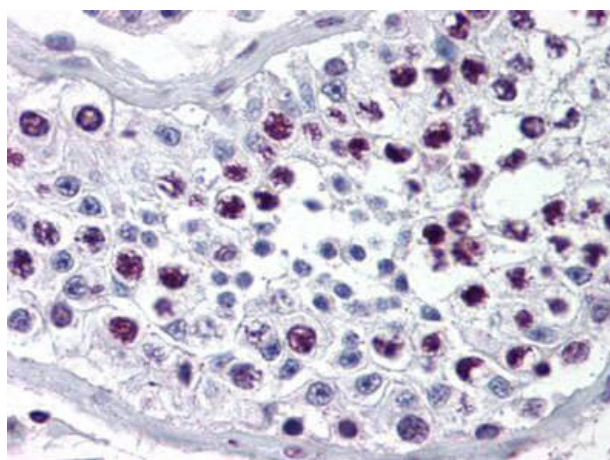
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



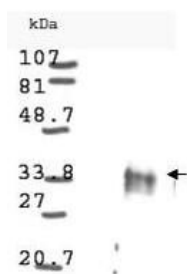
Immunohistochemistry

Rockland's anti-Cyclin B1 antibody was diluted 1:500 to detect Cyclin B1 in human brain cerebellum tissue. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counter stain.



Immunohistochemistry

Rockland's Anti-Cyclin A antibody was diluted 1:500 to detect Cyclin A in human testes tissue. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal with a hematoxylin purple nuclear counter stain.



Western Blot

Western blot analysis is shown using Rockland's anti-Cyclin D1 antibody to detect Human Cyclin D1 present in asynchronous HN30 cell lysates. HN30 cells, are from head and neck cancer cells that over express cyclin B1 and D1. Comparison to a molecular weight marker indicates a band of ~34 kDa corresponding to the expected molecular weight for the protein (arrowhead). The blot was incubated with a 1:500 dilution of the antibody at room temperature. Detection occurred using a 1:10,000 of HRP conjugated Goat-a-Rabbit IgG 611-103-122 and chemiluminescence reagent with a 1-min exposure time. Other detection systems will yield similar results. Personal communication Luca Cote.

**Kit Box**

This product is assembled as a kit. See attached protocol or CofA for further details.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.