

Anti-Cyclin D1 (RABBIT) Antibody - 100-401-153

Code: 100-401-153

Size: 100 µL

Product Description: Anti-Cyclin D1 (RABBIT) Antibody - 100-401-153

Concentration: 85 mg/mL by Refractometry

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	CCND1
Species Reactivity	human
Buffer	None
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
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.
Synonyms	rabbit anti-cyclin D1 antibody, G1/S-specific cyclin-D1, PRAD1 oncogene, BCL-1 oncogene
Application Note	This antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 34 kDa in size corresponding to Cyclin D1 by western blotting in the appropriate cell lysate or extract. MCF7 may be used as a positive control. Anti-Cyclin D1 is suitable for the detection by immunoblot of human, rat and mouse Cyclin D1.
Background	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.
Purity And Specificity	This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with a 40-45 kDa Cyclin D1 protein from human, rat and mouse tissue. No reaction was observed against other related cyclins. Cross reactivity with Cyclin D1 from other species may also occur.
Assay Dilutions	User Optimized
ELISA	1:2,000 - 1:10,000
Western Blot	1:500 - 1:1,000
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	Anti-Cyclin D1 was produced by repeated immunizations of full length fusion protein corresponding to the human gene sequence.
General Reference	Xiong, Y., Connolly, T., Futcher, B., and Beach, D. (1991) Human D-type cyclin. <i>Cell</i> 65: 691-699. Motokura, T., Bloom, T., Kim, H.G., Juppner, H., Ruderman, J.V., Kronenberg, H.M. and Arnold, A. (1991) A novel cyclin encoded by a bcl1-linked candidate oncogene. <i>Nature</i> 350: 512-515. Lutzen, A., Bisgaard, H.C. and Rasmussen, L.J. (2004) Cyclin D1 expression and cell cycle response in DNA mismatch repair-deficient cells upon methylation and UV-C damage. <i>Exp. Cell Res.</i> 292 (1): 123-134. Pines J. (1993) Cyclins and cyclin-dependent kinases: take your partners. <i>Trends Biochem Sci.</i> 18(6):195-7. Xiong, Y., Connolly, T., Futcher, B., and Beach, D. (1991) Human D-type cyclin. <i>Cell</i> 65: 691-699.
Related Products	200-301-268 Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268

610-4302	Anti-MOUSE IgG (H&L) (RABBIT) Antibody Peroxidase Conjugated - 610-4302
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
B304	NORMAL GOAT SERUM (NGS) - B304

Related Links

UniProtKB - P24385

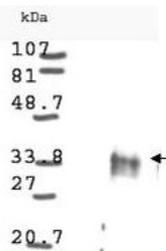
<http://www.uniprot.org/uniprot/P24385>

NCBI - 16950655 <http://www.ncbi.nlm.nih.gov/protein/16950655>

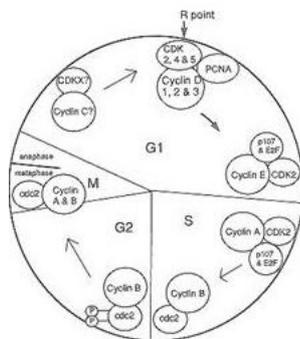
GeneID - 595

Images

1 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.



2 The R point is the restriction point. The diagram shows the stages of the cell cycle and the binding of the specified cyclins with the corresponding CDKs at each stage. cdc2 is kinase, p107 and E2F are proteins involved in transcription. See Pines, J. (1993).



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.