Datasheet for 600-401-GN2S

Cyclin D3 Antibody

Overview

Description:	Anti-Cyclin D3 (RABBIT) Antibody - 600-401-GN2S
Item No.:	600-401-GN2S
Size:	25 µL
Applications:	ELISA, FC, IHC, IP
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	Anti-Cyclin D3 antibody was designed, produced, and validated as part of the Joy Cappel Young Investigator Award (JCYIA). Cyclin D3 belongs to a highly conserved cyclin family, whose members are the ultimate recipients of oncogenic signals. Cyclin D3 is a key component of the cell cycle progression machinery and induces progression through the G1 phase of the cell cycle. Cyclin D3 is expressed in nearly all proliferating cells, and shows the most broad expression pattern of all three D-type (D1-D3) cyclins. Cyclin D3 is encoded from the 6p21 chromosome region and the protein is predominantly localized in the nucleus. Once induced, cyclin D3 binds and activates its associated cyclin-dependent kinases CDK4 and CDK6. Amplification of the cyclin D3 gene and overexpression of cyclin D3 protein is seen in several human cancers. A large number of human malignancies contain lesions in pathways impacting on cyclin D3. Abnormal expression of Cyclin D3 is believed to be a driving force in several human cancers. A possible role for cyclin D3 in the malignancies of the lymphoid system is suggested by the observations that cyclin D3 gene is rearranged in several neoplastic diseases such as diffuse large B cell lymphomas or multiple myelomas. Anti-Cyclin D3 is ideal for researchers interested in Cancer Research and Immunology research.
Synonyms:	rabbit anti-Cyclin D3 antibody, G1/S-specific cyclin-D3, Ccnd3, Cyl-3
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Ccnd3

Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the C-terminal domain of mouse Cyclin D3 protein.
Purity/Specificity:	Cyclin D3 affinity-purified antibody is directed against Cyclin D3 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. ELISA and western blot show equivalent reactivity against phosphorylated and non-phosphorylated Cyclin D3.
Relevant Links:	• UniProtKB - P30282 • GeneID - 12445

Application Details

Tested Applications:	ELISA, FC, IHC, IP
Application Note:	This affinity purified antibody has been tested for use in ELISA, immunohistochemistry, flow cytometry, and by immunoprecipitation. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 32.4 kDa in size corresponding to Cyclin D3 protein by western blotting in the appropriate stimulated tissue or cell lysate or extract. This reagent reacts equally to phosphorylated and non-phosphorylated Cyclin D3 by ELISA and western blotting.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1000-1:5000
FC:	4µg/mL
IHC:	4µg/mL
IP:	5µg/mL
WB:	1.0 ug/ml

Formulation

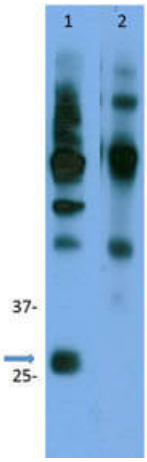
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Stabilizer:	None

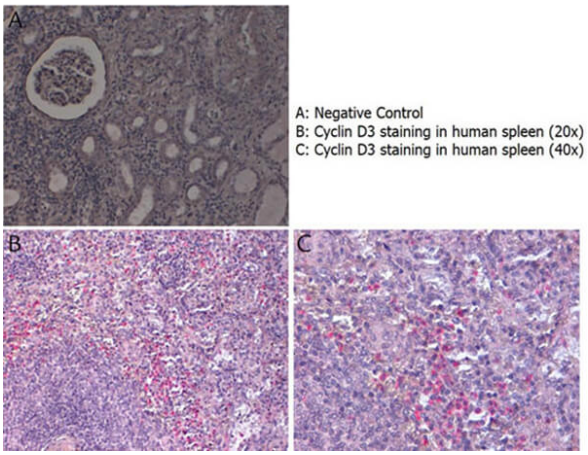
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

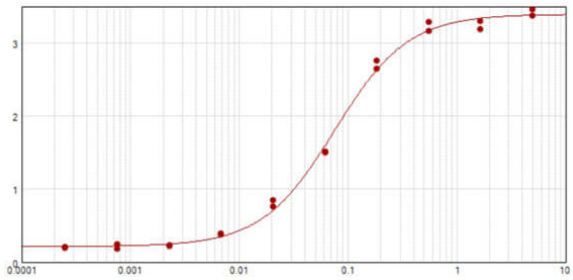
Images



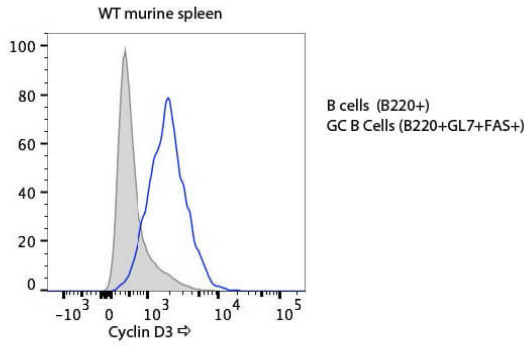
Immunoprecipitation
Immunoprecipitation of Rabbit Anti-Cyclin D3. Lane 1: 5µg anti-cyclin D3 antibody/IP. Primary Antibody: Cyclin D3 Mouse mAb. Lane 2: 5µg anti-cyclin D3 antibody/IP. Primary Antibody: Cyclin D2 rabbit pAB. Secondary Antibody: TrueBlot IgG IP beads. Expect: ~32kDa to D3 in lane 1. No reactivity to D2 in lane 2.



Immunohistochemistry
Immunohistochemistry with anti-Cyclin D3 antibody showing Cyclin D3 staining in nucleus of lymphocytes in human spleen at 20x and 40x (B & C). Formalin fixed/paraffin embedded sections were subjected to heat induced epitope retrieval (HIER) at pH 6.2 and then incubated with rabbit anti-mouse Cyclin D3 antibody at 4.0 µg/ml for 60 minutes. The reaction was developed using MACH 4 universal AP polymer detection system and visualized with WARP RED.



ELISA
ELISA results of purified Rabbit Anti-Cyclin D3 Antibody tested against BSA-conjugated peptide of cyclin D3 peptide. Each well was coated in duplicate with 0.1µg of conjugate (red line). The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using Blocking buffer (p/n MB-060-1000), Goat Anti-Rabbit IgG HRP conjugated (p/n 611-103-122) and TMB substrate (p/n TMBE-1000).



Flow Cytometry
Flow Cytometry of Rabbit anti-Cyclin D3 antibody. Cells: mouse B cells+, 14 days post immunization (NP-CGG). Anti-Cyclin D3-RPE antibody at 1:500 for 20 min at 4°C.

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.