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Anti-Cyclin D3 (RABBIT) Antibody

Cyclin D3 Antibody
Catalog # ASR5541

Specification

Anti-Cyclin D3 (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Mouse**
Reactivity	**Human, Mouse**
Clonality	**Polyclonal**
Application	**WB, IHC, E, IP, I, LCI**
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. ELISA and western blot show equivalent reactivity against phosphorylated and non-phosphorylated Cyclin D3.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
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.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-Cyclin D3 (RABBIT) Antibody - Additional Information

Gene ID 12445

Other Names
12445

Purity
Cyclin D3 affinity-purified antibody is directed against Cyclin D3 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from mouse, human, and bovine sources based on 100% homology for the immunogen sequence. Cross reactivity with other sources has not been determined. No reactivity was observed against Cyclin D2.

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.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Cyclin D3 (RABBIT) Antibody - Protein Information

Name Ccnd3 {ECO:0000303|PubMed:8661116, ECO:0000312|MGI:MGI:88315}

Function
Regulatory component of the cyclin D3-CDK4 (DC) complex that phosphorylates and inhibits members of the retinoblastoma (RB) protein family including RB1 and regulates the cell-cycle during G(1)/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complex and the subsequent transcription of E2F target genes which are responsible for the progression through the G(1) phase. Hypophosphorylates RB1 in early G(1) phase. Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals. Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex. Shows transcriptional coactivator activity with ATF5 independently of CDK4.

Cellular Location
Nucleus {ECO:0000250|UniProtKB:P30281}. Cytoplasm {ECO:0000250|UniProtKB:P30281}

Anti-Cyclin D3 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Cyclin D3 (RABBIT) Antibody - Images

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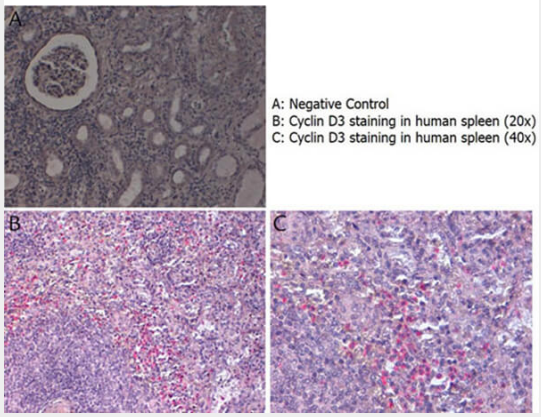

Immunohistochemistry with anti-Cyclin D3 antibody showing Cyclin D3 staining in nucleus of lymphocytes in human spleen at 20x and 40x (B & C). Formalin fixed/paraffin embedded sections were subjected to heat induced epitope retrieval (HIER) at pH 6.2 and then incubated with rabbit anti-mouse Cyclin D3 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.

Anti-Cyclin D3 (RABBIT) Antibody - 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.