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Anti-Cyclin D3 Picoband Antibody

Catalog # ABO11810

Specification

Anti-Cyclin D3 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P30281
Host	**Rabbit**
Reactivity	**Human, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for G1/S-specific cyclin-D3(CCND3) detection. Tested with WB in Human;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Cyclin D3 Picoband Antibody - Additional Information

Gene ID 896

Other Names
G1/S-specific cyclin-D3, CCND3

Calculated MW
32520 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization
Nucleus . Cytoplasm . Membrane . Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated to the nucleus through interaction with KIP/CIP family members. .

Protein Name
G1/S-specific cyclin-D3

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human Cyclin D3 recombinant protein (Position: Q136-L292). Human Cyclin D3 shares 94% and 93% amino acid (aa) sequences identity with mouse and rat Cyclin D3, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the cyclin family. Cyclin D subfamily.

Anti-Cyclin D3 Picoband Antibody - Protein Information

Name CCND3 {ECO:0000303|PubMed:1386336, ECO:0000312|HGNC:HGNC:1585}

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 (PubMed:8114739). 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 (PubMed:8114739). Hypophosphorylates RB1 in early G(1) phase (PubMed:8114739). Cyclin D- CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:8114739). Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (PubMed:16782892). Shows transcriptional coactivator activity with ATF5 independently of CDK4 (PubMed:15358120).

Cellular Location
Nucleus. Cytoplasm

Anti-Cyclin D3 Picoband 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 Picoband Antibody - Images

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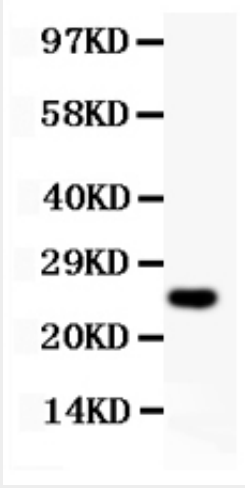
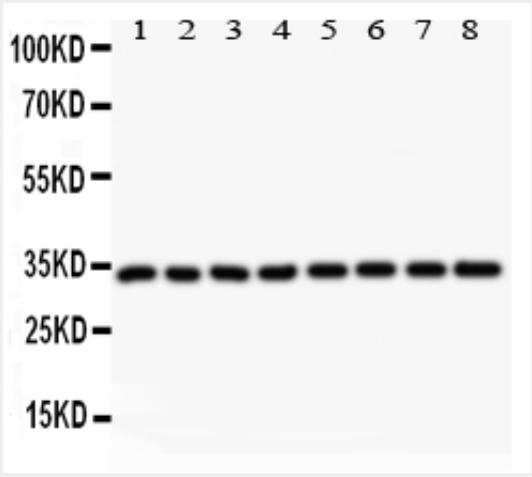


Anti-Cyclin D3 Picoband antibody, ABO11810-1.jpgAll lanes: Anti Cyclin D3 (ABO11810) at 0.5ug/mlWB: Recombinant Human Cyclin D3 Protein 0.5ngPredicted bind size: 25KDObserved bind size: 25KD



Anti-Cyclin D3 Picoband antibody, ABO11810-2.jpgAll lanes: Anti Cyclin D3 (ABO11810) at 0.5ug/mlLane 1: Rat Testis Tissue Lysate at 50ugLane 2: Rat Thymus Tissue Lysate at 50ugLane 3: Rat Lung Tissue Lysate at 50ugLane 4: Rat Ovary Tissue Lysate at 50ugLane 5: JURKAT Whole Cell Lysate at 40ugLane 6: A549 Whole Cell Lysate at 40ugLane 7: MCF-7 Whole Cell Lysate at 40ugLane 8: HELA Whole Cell Lysate at 40ugPredicted bind size: 33KDObserved bind size: 33KD

Anti-Cyclin D3 Picoband Antibody - Background

CCND3, also called Cyclin D3, is a protein that in humans is encoded by the CCND3 gene. It is mapped to 6p21.1. The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activtiy is required for cell cycle G1/S transition. In addition, overexpression of CCND3 upregulated the translational activity in HeLa cells in a dose-dependent manner.