Datasheet for ABIN967636

anti-Cyclin C antibody (AA 290-303)

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Overview

Quantity:	0.1 mL
Target:	Cyclin C (CCNC)
Binding Specificity:	AA 290-303
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Cyclin C antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Human Cyclin C polypeptide fragment aa. 290-303
Cross-Reactivity:	Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The polyclonal antibody was purified from antiserum by negative adsorption and affinity chromatography.

Target Details

Target:	Cyclin C (CCNC)
Alternative Name:	Cyclin C (CCNC Products)
Background:	Cyclins and cyclin-dependent kinases (cdks) are evolutionarily conserved proteins that are essential for cell-cycle control in eukaryotes. Cyclins contain a conserved amino acid sequence motif, the cyclin box, which allows their binding to cdks to form active complexes that regulate progression of the cell cycle. More recently, cyclins are being shown to have additional functions not restricted to cell cycle regulation. Thus, cyclins have been placed into functional groups as follows: Group 1 cyclins (A, B, D1, D2, D3, E and F) function primarily in cell cycle reguation, Group 2 cyclins (C and H) also play a role in transcriptional regulation, Group 3 cyclins (G1, G2 and I) may play a role distinct from either cell cycle or transcriptional regulation. Cyclin C has been identified in both human and chicken species. Like many cyclins, the expression of cyclin C oscillates throughout the cell cycle, with a peak observed during G1 phase. Cyclin C may play a dual role within the cell in its ability to regulate both cell cycle progression as well as gene transcription. Cyclin C associates with Cdk8, forming a complex which can induce gene transcription of Cdc2 (Cdk1). Because Cdc2 kinase is important for cell entry into mitosis, cyclin C's ability to regulate cell cycle progression may be attributed, in part, to modulation of Cdc2 protein expression.6 Cyclin C has a predicted molecular weight of 36 kD. The polyclonal antiserum reacts with human and mouse cyclin C. A polypeptide fragment containing amino acids 290-303 (QGPNGSQNSSYSQS) at the C-terminus of human cyclin C, with the addition of a C-terminal cysteine (C) residue to facilitate conjugation to KLH, was used as immunogen.
Molecular Weight:	36 kDa
Pathways:	Cell Division Cycle, Regulation of Lipid Metabolism by PPARalpha

Application Details

Application Notes:	The antibodies may be used for western blot analysis (1:1000) and immunoprecipitation (1:100). Cyclin C has a molecular weight of 36 kD, however a 45 kD protein may also be observed in some cell types using the antiserum. The identity of this protein has not been determined, but may represent an alternative splice product of the cyclin C gene, as has been identified in other species. HeLa human cervical carcinoma (ATCC CCL 2) and NIH 3T3 mouse fibroblasts (ATCC CRL 1658) are suggested as a positive controls for these applications.
Comment:	Related Products: ABIN967390, ABIN968538
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:

Liu, Ueda, Miyazaki, Tanaka, Mine, Tanaka, Taniguchi, Yamamura, Minami: "A critical role for cyclin C in promotion of the hematopoietic cell cycle by cooperation with c-Myc." in: **Molecular and cellular biology**, Vol. 18, Issue 6, pp. 3445-54, (1998) (PubMed).

Bates, Rowan, Vousden: "Characterisation of human cyclin G1 and G2: DNA damage inducible genes." in: **Oncogene**, Vol. 13, Issue 5, pp. 1103-9, (1996) (PubMed).

Li, Lahti, Kidd: "Alternatively spliced cyclin C mRNA is widely expressed, cell cycle regulated, and encodes a truncated cyclin box." in: **Oncogene**, Vol. 13, Issue 4, pp. 705-12, (1996) (PubMed).

Demetrick, Matsumoto, Hannon, Okamoto, Xiong, Zhang, Beach: "Chromosomal mapping of the genes for the human cell cycle proteins cyclin C (CCNC), cyclin E (CCNE), p21 (CDKN1) and KAP (CDKN3)." in: **Cytogenetics and cell genetics**, Vol. 69, Issue 3-4, pp. 190-2, (1995) (PubMed).

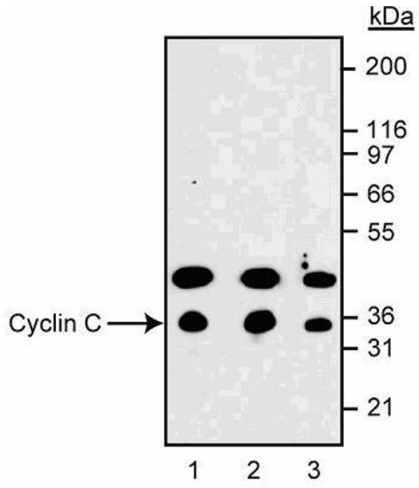
Tassan, Jaquenoud, Léopold, Schultz, Nigg: "Identification of human cyclin-dependent kinase 8, a putative protein kinase partner for cyclin C." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 92, Issue 19, pp. 8871-5, (1995) (PubMed).

There are more publications referencing this product on: Product page

Image 1.

Western Blotting

Image 2. Western blot analysis of cyclin C in NIH 3T3 mouse fibroblasts. The polyclonal antibodies (ABIN967636) was titrated from 1:4000 to 1:12,000 (lanes 1 to 3) and identifies cyclin at ~ 36 kD. The identity of the higher molecular weight band (~ 45 kD) has not been determined, but may represent an alternative splice product of the cyclin C gene.



Western Blotting

Image 3.