

## Product datasheet

# Anti-Cyclin D1 antibody [SP4] (FITC) ab27618

RabMAb<sup>®</sup>

## 1 References

### Overview

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<b>Product name</b>	Anti-Cyclin D1 antibody [SP4] (FITC)
<b>Description</b>	Rabbit monoclonal [SP4] to Cyclin D1 (FITC)
<b>Host species</b>	Rabbit
<b>Conjugation</b>	FITC. Ex: 493nm, Em: 528nm
<b>Specificity</b>	Ab27618 recognises Cyclin D1.
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, Flow Cyt, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	A synthetic peptide from C terminus of human cyclin D1.
<b>Epitope</b>	Ab27618 reacts with an epitope located in the C terminal region of cyclin D1.
<b>Positive control</b>	Human breast carcinomas.

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Store at +4°C.
<b>Storage buffer</b>	Preservative: 0.1% Sodium Azide Constituents: 50% Glycerol
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	SP4
<b>Isotype</b>	IgG

### Applications

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Our [Abpromise guarantee](#) covers the use of **ab27618** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/100.
Flow Cyt		Use at an assay dependent dilution.
IHC-P		Use at an assay dependent dilution.

## Target

<b>Function</b>	Essential for the control of the cell cycle at the G1/S (start) transition.
<b>Involvement in disease</b>	<p>Note=A chromosomal aberration involving CCND1 may be a cause of B-lymphocytic malignancy, particularly mantle-cell lymphoma (MCL). Translocation t(11;14)(q13;q32) with immunoglobulin gene regions. Activation of CCND1 may be oncogenic by directly altering progression through the cell cycle.</p> <p>Note=A chromosomal aberration involving CCND1 may be a cause of parathyroid adenomas. Translocation t(11;11)(q13;p15) with the parathyroid hormone (PTH) enhancer.</p> <p>Defects in CCND1 are a cause of multiple myeloma (MM) [MIM:254500]. MM is a malignant tumor of plasma cells usually arising in the bone marrow and characterized by diffuse involvement of the skeletal system, hyperglobulinemia, Bence-Jones proteinuria and anemia. Complications of multiple myeloma are bone pain, hypercalcemia, renal failure and spinal cord compression. The aberrant antibodies that are produced lead to impaired humoral immunity and patients have a high prevalence of infection. Amyloidosis may develop in some patients. Multiple myeloma is part of a spectrum of diseases ranging from monoclonal gammopathy of unknown significance (MGUS) to plasma cell leukemia. Note=A chromosomal aberration involving CCND1 is found in multiple myeloma. Translocation t(11;14)(q13;q32) with the IgH locus.</p>
<b>Sequence similarities</b>	Belongs to the cyclin family. Cyclin D subfamily.
<b>Post-translational modifications</b>	<p>Phosphorylation at Thr-286 by MAP kinases is required for ubiquitination and degradation following DNA damage. It probably plays an essential role for recognition by the FBXO31 component of SCF (SKP1-cullin-F-box) protein ligase complex.</p> <p>Ubiquitinated, primarily as 'Lys-48'-linked polyubiquitination. Ubiquitinated by a SCF (SKP1-CUL1-F-box protein) ubiquitin-protein ligase complex containing FBXO4 and CRYAB (By similarity). Following DNA damage it is ubiquitinated by some SCF (SKP1-cullin-F-box) protein ligase complex containing FBXO31. Ubiquitination leads to its degradation and G1 arrest. Deubiquitinated by USP2; leading to stabilize it.</p>
<b>Cellular localization</b>	Nucleus.

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