

Product datasheet

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

RabMAb[®]

1 References

Overview

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

Properties

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

Applications

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

Function

Essential for the control of the cell cycle at the G1/S (start) transition.

Involvement in disease

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.

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.

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.

Sequence similarities

Belongs to the cyclin family. Cyclin D subfamily.

Post-translational modifications

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.

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.

Cellular localization

Nucleus.

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