

# **Product datasheet for SM1424P**

### OriGene Technologies, Inc.

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## Cyclin D1 (CCND1) Mouse Monoclonal Antibody [Clone ID: CD1.1]

#### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: CD1.1

**Applications:** ELISA, FC, IHC, IP, WB

**Recommended Dilution:** Flow Cytometry (neat): Membrane permeabilisation is required for this application.

ELISA.

Immunoprecipitation. Western Blot: 1/500.

Immunohistochemistry on Frozen Sections.

Immunohistochemistry on Paraffin Sections: 1/1000-1/10000. This product requires antigen retrieval using heat treatment prior to staining of paraffin sections; Sodium citrate buffer pH

6.0 is recommended for this purpose.

Recommended Positive Control: Small intestine, colon.

Reactivity: Human Host: Mouse

**Isotype:** IgG1

Clonality: Monoclonal

Immunogen: Human Cyclin D1. Spleen cells from immunised mice were fused with cells of the mouse Sp-2

myeloma cell line.

**Specificity:** This antibody recognises the Cyclin D1.

**Formulation:** PBS containing 0.09% Sodium Azide as preservative.

State: Purified

State: Liquid purified IgG fraction.

**Concentration:** lot specific

**Purification:** Affinity Chromatography on Protein A.

Conjugation: Unconjugated

**Storage:** Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

**Stability:** Shelf life: one year from despatch.





#### Cyclin D1 (CCND1) Mouse Monoclonal Antibody [Clone ID: CD1.1] - SM1424P

**Gene Name:** cyclin D1

Database Link: Entrez Gene 595 Human

P24385

Background: Cyclin D1 a 36kD nuclear protein. D type cyclins are predominantly expressed in the G1

phase of the cell cycle. Cyclin D1 study is of interest in various forms of malignancy, and over

expression has been linked to poor prognosis.

During each cell cycle cyclins undergo periodic accumulation and destruction. As key regulators of the cell cycle the cyclins control important transitions by acting as regulatory subunits of the Cdks. Early in the G1 phase of the cell cycle, cyclin D1 induction is followed by cyclin E induction. This sequential progression is marked early on in G1 by the activation of Cdk4 and in mid to late G1 by the activation of Cdk2 and the hyperphosphorylation of pRB. The final transition into S phase is thought to be dependent on the increased expression and

association of cyclin E and Cdk2.

In a recent study, Cyclin D1 regulates cellular metabolism, fat cell differentiation and cellular

migration. Cyclin D1 is also involved in development and cancer.

Synonyms: Cyclin-D1, PRAD-1 oncogene, BCL-1 oncogene, CCND1, BCL1, PRAD1