

Cyclin D1 Recombinant Rabbit Monoclonal Antibody Product Datasheet

Catalog# BX50071

Clone# BP6076

Predicted Molecular Wt: 34kDa
Species Cross-reactivity: Human
Applications: IHC-P

Purity: ProA affinity purified IgG
Form: Liquid
Swissprot ID: P24385

Background:

Cyclin D1 (synonymes: PRAD1, parathyroid adenomatosis 1, CCND1) is a 295 amino acid protein, 36 kDa, which belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance throughout the cell cycle. Cyclin D1 forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activity is required for cell cycle G1/S transition. The protein has been shown to interact with tumour suppressor protein Rb and its expression is regulated positively by Rb.

The expression is cell cycle dependant, maximal in G1 and minimal in S phase. Localization is mainly nuclear. In normal tissues, Cyclin D1 expression is restricted to the proliferative zone of epithelial tissues, endothelium and some fibroblasts. There is no expression in lymphoid tissue.

Mutations with amplification of the cyclin D1 gene, with overexpression of the protein, which alters cell cycle progression, are observed frequently in a variety of tumours and may contribute to tumourigenesis.

In diagnostic pathology, immunohistochemical detection of Cyclin D1 is used mainly for the diagnosis of mantle cell lymphoma. While other methods of cyclin D1 detection are being explored, immunohistochemistry is still widely used and anti-cyclin D1 antibodies remain an essential component in a small B-cell lymphoproliferative disorder panel.

Subcellular location:

Nucleus

Recommended method:

Heat induced epitope retrieval with Tris-EDTA buffer (pH 9.0), primary antibody incubate at RT (18°C-25°C) for 30 minutes.

Immunogen:

Synthetic peptide corresponding to residues within aa200-295 of Cyclin D1 was used as an immunogen.

Storage Buffer:

PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.

Storage conditions:

-20°C

Storage instructions:

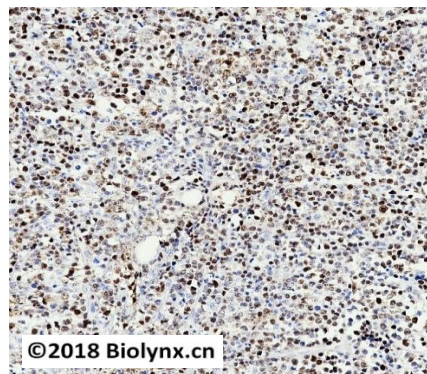
Shipped on blue ice. Upon delivery, aliquot, and store at -20°C. Avoid freeze / thaw cycles.

Recommended Dilutions:

IHC-P: 1:100-1:200

Background References:

1. Hirai, H. et al. Novel INK4 proteins, p19 and p18, are specific inhibitors of the cyclin D-dependent kinases CDK4 and CDK6. *Mol Cell Biol.* 1995 May; 15(5): 2672-2681.
2. Sherr, C.J. Cancer cell cycles. *Science.* 1996 Dec 6;274(5293):1672-7.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections analysis of mantle cell lymphoma labelling Cyclin D1 with BP6076. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0.

Product QC'd by:



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