



Rabbit Anti-Human CCND1 Monoclonal Antibody, clone CQ7187 (CABT-Z242R)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Synthetic peptide corresponding to residues within aa200-295 of Cyclin D1 was used as an immunogen.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Clone	CQ7187
Purification	ProA affinity purified IgG.
Conjugate	Unconjugated
Applications	IHC-P Recommended concentration: IHC-P: 1:100-1:200
Molecular Weight	34 kDa
Cellular Localization	Nucleus
Positive Control	Mantle cell lymphoma
Format	Liquid
Concentration	Lot specific
Size	100 µl

Buffer	PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.
Preservative	0.01% Sodium azide
Storage	Store at -20 °C. Avoid freeze/thaw cycles.
Ship	Wet ice

BACKGROUND

Introduction

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.

Keywords

CCND1; cyclin D1; BCL1; PRAD1; U21B31; D11S287E; G1/S-specific cyclin-D1; BCL-1 oncogene; PRAD1 oncogene; B-cell CLL/lymphoma 1; B-cell lymphoma 1 protein

GENE INFORMATION

Gene Name	CCND1
Entrez Gene ID	595
UniProt ID	P24385