



Product Information Sheet

Polyclonal Anti- Cyclin D1 (Magnetic Bead Conjugate)

Catalogue No. PA1245-M	Immunogen
Lot No. 09G01	A synthetic peptide corresponding to a sequence at the N-terminal of human Cyclin D1, different to the related mouse sequence by two amino acids.
Ig type: rabbit IgG1	Purification
Size: 100µg/Vial	Immunogen affinity purified
Specificity	Contents
Human, rat, mouse.	Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN ₃ .
No cross reactivity with other proteins.	Storage
	Store at 4°C for frequent use.
Recommended application	Description:
<i>Immunoprecipitation(IP)</i>	This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

BACKGROUND

Cyclin D1, also known as CCND1, is a human gene. The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance throughout the cell cycle. Cyclin D1 encodes the regulatory subunit of a holoenzyme that phosphorylates and inactivates the retinoblastoma protein and promotes progression through the G1-S phase of the cell cycle. Amplification or overexpression of cyclin D1 plays pivotal roles in the development of a subset of human cancers including parathyroid adenoma, breast cancer, colon cancer, lymphoma, melanoma, and prostate cancer.¹ The cyclin D1 gene is overexpressed in human breast cancers and is required for oncogene-induced tumorigenesis.² Briskin et al. (2003) found that prolactin (PRL; 176760) induced IGF2 (147470) mRNA and IGF2 induced cyclin D1 protein expression in mouse mammary epithelial cultures. And they also concluded that IGF2 is a mediator of prolactin-induced alveologenesis and that prolactin, IGF2, and cyclin D1 are components of a developmental pathway in mammary gland.³

REFERENCE

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2. Wang, C.; Pattabiraman, N.; Zhou, J. N.; Fu, M.; Sakamaki, T.; Albanese, C.; Li, Z.; Wu, K.; Hult, J.; Neumeister, P.; Novikoff, P. M.; Brownlee, M.; Scherer, P. E.; Jones, J. G.; Whitney, K. D.; Donehower, L. A.; Harris, E. L.; Rohan, T.; Johns, D. C.; Pestell, R. G. : Cyclin D1 repression of peroxisome proliferator-activated receptor gamma expression and transactivation. *Molec. Cell. Biol.* 23: 6159-6173, 2003.
3. Briskin, C.; Ayyannan, A.; Nguyen, C.; Heineman, A.; Reinhardt, F.; Tan, J.; Dey, S. K.; Dotto, G. P.; Weinberg, R. A. : IGF-2 is a mediator of prolactin-induced morphogenesis in the breast. *Dev. Cell* 3: 877-887, 2002. Note: Erratum: *Dev. Cell* 4: 283 only, 2003.

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