

Product datasheet for **TA327031**

Cyclin D1 (CCND1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB 1:500 - 1:2000;IHC 1:50- 1:200
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human CCND1
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	cyclin D1
Database Link:	NP_444284 Entrez Gene 12443 Mouse Entrez Gene 58919 Rat Entrez Gene 595 Human P24385



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Background:

Activity of the cyclin-dependent kinases CDK4 and CDK6 is regulated by T-loop phosphorylation, by the abundance of their cyclin partners (the D-type cyclins), and by association with CDK inhibitors of the Cip/Kip or INK family of proteins. The inactive ternary complex of cyclin D/CDK4 and p27 Kip1 requires extracellular mitogenic stimuli for the release and degradation of p27 concomitant with a rise in cyclin D levels to affect progression through the restriction point and Rb-dependent entry into S-phase. The active complex of cyclin D/CDK4 targets the retinoblastoma protein for phosphorylation, allowing the release of E2F transcription factors that activate G1/S-phase gene expression. Levels of cyclin D protein drop upon withdrawal of growth factors through downregulation of protein expression and phosphorylation-dependent degradation. Of the three D cyclins, aberrant expression of cyclin D1 has been associated with many forms of cancer including B cell lymphomas and can directly contribute to oncogenesis by various mechanisms including gene translocation or amplification. Cyclin D1 also plays a critical role in mammary tissue maturation.

Synonyms:

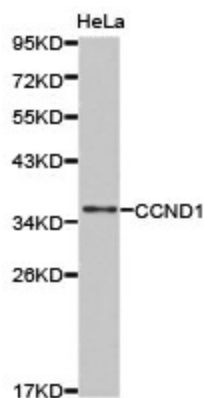
BCL1; D11S287E; PRAD1; U21B31

Protein Families:

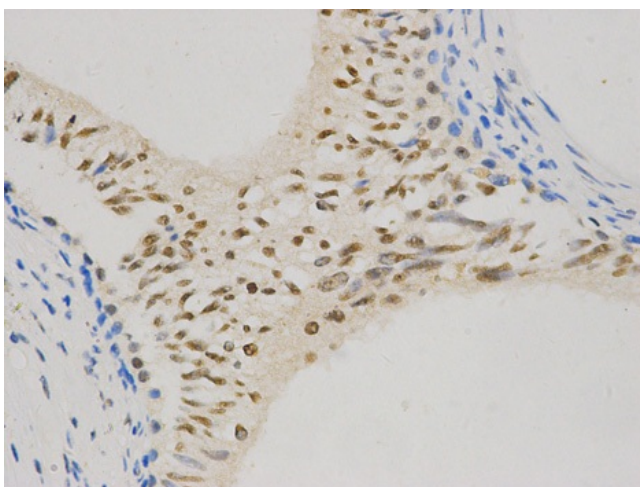
Druggable Genome, Stem cell - Pluripotency, Stem cell relevant signaling - DSL/Notch pathway, Stem cell relevant signaling - JAK/STAT signaling pathway, Stem cell relevant signaling - Wnt Signaling pathway

Protein Pathways:

Acute myeloid leukemia, Bladder cancer, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, Focal adhesion, Glioma, Jak-STAT signaling pathway, Melanoma, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer, Prostate cancer, Small cell lung cancer, Thyroid cancer, Viral myocarditis, Wnt signaling pathway

Product images:

Western blot analysis of extracts of HeLa cell line, using Cyclin D1 antibody.



Immunohistochemistry of paraffin-embedded human epididymis using CCND1 antibody at dilution of 1:500 (400x lens).