CCND3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CCND3, Polyclonal Antibody
Full Product Name	CCND3, Phosphorylated (T283) (CCND3, G1/S-specific cyclin-D3) (MaxLight 750)
Product Gene Name	anti-CCND3 antibody
Product Synonym Names	CCND3; G1/S-specific cyclin-D3
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight750 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	32,520 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (41902671..42016610, complement). Location: 6p21
OMIM	123834
3D Structure	ModBase 3D Structure for P30281
Immunogen	CCND3 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding T283 of human CCND3.
Conjugate	MaxLight750
Antigen Modification	Phosphorylated
Note	Preservative Free
Product Categories/Family for anti-CCND3 antibody	Antibodies; Cyclin
Applications Tested/Suitable for anti-CCND3 antibody	FLISA, Dot Blot (DB)
Application Notes for anti-CCND3 antibody	FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-CCND3 antibody	The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activtiy is required for cell cycle G1/S transition. This protein has been shown to interact with and be involved in the phosphorylation of tumor suppressor protein Rb. The CDK4 activity associated with this cyclin was reported to be necessary for cell cycle progression through G2 phase into mitosis after UV radiation. Several transcript variants encoding different isoforms have been found for this gene.

Product References and Citations for anti-CCND3 antibody	Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010). Kim, J., et al. Cytokine 50(1):42-49(2010). Kamatani, Y., et al. Nat. Genet. 42(3):210-215(2010). Gumina, M.R., et al. Cell Cycle 9(4):820-828(2010). Radulovich, N., et al. Mol. Cancer 9, 24 (2010).
Other Notes	Small volumes of anti-CCND3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CCND3 purchase	MBS6282375 is an antibody targeting CCND3. Also known as CCND3, Phosphorylated (T283) (CCND3, G1/S-specific cyclin-D3) (MaxLight 750). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CCND3. It may not necessarily be applicable to this product.

NCBI GI #	209862835
NCBI GeneID	896
NCBI Accession #	NP_001129489.1
UniProt Primary Accession #	P30281
UniProt Secondary Accession #	Q5T8J0; Q6FG62; Q96F49; B2RD63; B3KQ22; E9PAS4; E9PB36
UniProt Related Accession #	P30281
GenBank Nucleotide #	NM_001136017.2
NCBI Official Full Name	G1/S-specific cyclin-D3 isoform 1
NCBI Official Synonym Full Names	cyclin D3
NCBI Official Symbol	CCND3
UniProt Protein Name	G1/S-specific cyclin-D3
Protein Family	G1/S-specific cyclin
UniProt Gene Name	CCND3
UniProt Entry Name	CCND3_HUMAN
NCBI Protein Information	G1/S-specific cyclin-D3; D3-type cyclin; G1/S-specific cyclin D3

UniProt Comments for CCND3	CCND3: Regulatory component of the cyclin D3-CDK4 (DC) complex that phosphorylates and inhibits members of the retinoblastoma (RB) protein family including RB1 and regulates the cell-cycle during G(1)/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complex and the subsequent transcription of E2F target genes which are responsible for the progression through the G(1) phase. Hypophosphorylates RB1 in early G(1) phase. Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals. Also substrate for SMAD3, phosphorylating SMAD3 in a cell-cycle-dependent manner and repressing its transcriptional activity. Component of the ternary complex, cyclin D3/CDK4/p27Kip1, required for nuclear translocation and activity of the cyclin D-CDK4 complex. Interacts with the CDK4 and CDK6 protein kinases to form a serine/threonine kinase holoenzyme complex. The cyclin subunit imparts substrate specificity to the complex. Interacts with ATF5. Interacts with EIF3K. Component of the ternary complex cyclin D/CDK4/p27Kip1 required for nuclear translocation and modulation of CDK4-mediated kinase activity. Can form similar complexes with either p21Cip1 or CDKN2A. Belongs to the cyclin family. Cyclin D subfamily. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Cell cycle regulation; Activator; Nuclear receptor co-regulator Chromosomal Location of Human Ortholog: 6p21 Cellular Component: membrane; cytoplasm; cyclin-dependent protein kinase holoenzyme complex; nucleus Molecular Function: protein binding; cyclin-dependent protein kinase activity; protein kinase binding Biological Process: T cell proliferation; positive regulation of cyclin-dependent protein kinase activity; cell division; positive regulation of protein amino acid phosphorylation; cell cycle; signal transduction
Research Articles on CCND3	**1.** Study reports that a cis-acting element, located between nucleotides 31 and 50 of the human CCND3 5' UTR, forms a stable G-quadruplex structure and represses translation of a reporter gene and the CCND3 gene in human cell lines.
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