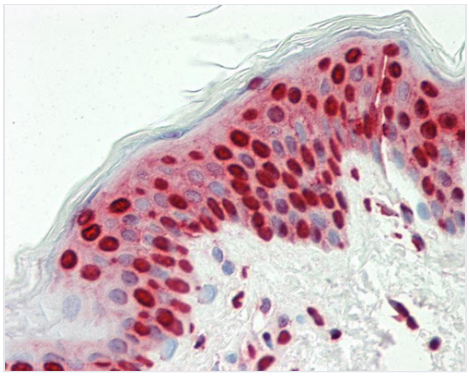
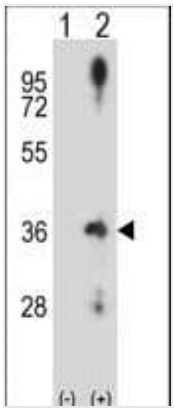
CCND2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

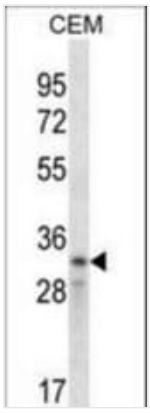
Product Name	CCND2 / Cyclin D2, Polyclonal Antibody
Full Product Name	Anti-CCND2 / Cyclin D2 Antibody (aa1-30) IHC-plus
Product Gene Name	anti-CCND2 antibody
Product Synonym Names	Rabbit Polyclonal to Human CCND2 / Cyclin D2; Human CCND2 / Cyclin D2; KIAK0002; G1/S-specific cyclin D2; G1/S-specific cyclin-D2; Cyclin D2
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	PBS, 0.09% sodium azide
Purity/Purification	Immunoaffinity purified
Specificity	Human Cyclin D2
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Molecular Weight	24,461 Da
OMIM	123833
3D Structure	ModBase 3D Structure for P30279
Immunogen	CCND2 / Cyclin D2 antibody was raised against kLH-conjugated synthetic peptide from N-terminal region of human CCND2.
Immunogen Description	KLH-conjugated synthetic peptide from N-terminal region of human CCND2.
Immunogen Type	Synthetic peptide
Antigen Modification	aa1-30
Target Species	Human
Applications Tested/Suitable for anti-CCND2 antibody	Immunohistochemistry (IHC) Paraffin, Western Blot (WB)
Application Notes for anti-CCND2 antibody	IHC-P (1:50) WB (1:1000)
Related Product Information for anti-CCND2 antibody	CCND2 Antibody, KIAK0002 Antibody, G1/S-specific cyclin D2 Antibody, G1/S-specific cyclin-D2 Antibody, Cyclin D2 Antibody Description: Regulatory component of the cyclin D2-CDK4 (DC) complex that phosphorylates and inhibits members of the retinoblastoma (RB) protein family including RB1 and regulates the cell-cycle during G1/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 G1 phase. Hypophosphorylates RB1 in early G1 phase.
Other Notes	Small volumes of anti-CCND2 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 CCND2 purchase	MBS249853 is an antibody targeting CCND2. Also known as Anti-CCND2 / Cyclin D2 Antibody (aa1-30) IHC-plus. Reactive in Human. Host: Rabbit.



Immunohistochemistry (IHC) of anti-CCND2 antibody
Anti-CCND2 / Cyclin D2 antibody IHC staining of human skin. Immunohistochemistry of formalin-fixed, paraffin-embedded tissue after heat-induced antigen retrieval. Antibody dilution 1:50.



Western Blot (WB) of anti-CCND2 antibody
Western blot of CCND2 (arrow) using rabbit polyclonal CCND2 Antibody. 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CCND2 gene.



Western Blot (WB) of anti-CCND2 antibody
CCND2 Antibody western blot of CEM cell line lysates (35 ug/lane). The CCND2 antibody detected the CCND2 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CCND2. It may not necessarily be applicable to this product.

NCBI GI #	4502617
NCBI GeneID	894
NCBI Accession #	NP_001750.1
UniProt Primary Accession #	P30279
UniProt Secondary Accession #	Q13955; Q5U035; A8K531
UniProt Related Accession #	P30279
GenBank Nucleotide #	NM_001759.3
NCBI Official Full Name	G1/S-specific cyclin-D2
NCBI Official Synonym Full Names	cyclin D2
NCBI Official Symbol	CCND2
NCBI Official Synonym Symbols	MPPH3; KIAK0002
UniProt Protein Name	G1/S-specific cyclin-D2
Protein Family	G1/S-specific cyclin
UniProt Gene Name	CCND2

UniProt Entry Name	CCND2_HUMAN
NCBI Protein Information	G1/S-specific cyclin-D2
NCBI Summary for CCND2	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 CDK4 or CDK6 and functions as a regulatory subunit of the complex, whose activity 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. Knockout studies of the homologous gene in mouse suggest the essential roles of this gene in ovarian granulosa and germ cell proliferation. High level expression of this gene was observed in ovarian and testicular tumors. Mutations in this gene are associated with megalencephaly-polymicrogyria-polydactyly-hydrocephalus syndrome 3 (MPPH3). [provided by RefSeq, Sep 2014]
UniProt Comments for CCND2	CCND2: Regulatory component of the cyclin D2-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 D2/CDK4/p27Kip1, required for nuclear translocation and activity of the cyclin D-CDK4 complex. Interacts with either CDK4 or CDK6 protein kinase to form a serine/threonine kinase holoenzyme complex. The cyclin subunit imparts substrate specificity to the complex. Component of the ternary complex cyclin D/CDK4/p27Kip1 required for nuclear translocation and modulation of CDK4-mediated kinase activity. Belongs to the cyclin family. Cyclin D subfamily. Protein type: Cell cycle regulation; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 12p13 Cellular Component: chromatin; cyclin-dependent protein kinase holoenzyme complex; cytosol; nuclear membrane; nucleolus; nucleoplasm; nucleus Molecular Function: protein binding; protein kinase binding Biological Process: cell cycle; cell division; positive regulation of cyclin-dependent protein kinase activity; positive regulation of protein amino acid phosphorylation Disease: Megalencephaly-polymicrogyria-polydactyly-hydrocephalus Syndrome 3
Research Articles on CCND2	**1.** the dysregulation of miR-206-CCND2 axis may contribute to the aggressive progression and poor prognosis of human gastric cancer.
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