# Cyclin D2 (CCND2) Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | Cyclin D2 (CCND2), Polyclonal Antibody |
| **Full Product Name** | Cyclin D2 (CCND2, G1/S-specific Cyclin-D2, KIAK0002, MGC102758) (MaxLight 490) |
| **Product Gene Name** | anti-CCND2 antibody |
| **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 MaxLight490. |
| **Purity/Purification** | Purified by Protein A Affinity Chromatography. |
| **Specificity** | Recognizes human CCND2. |
| **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 amo |
| **Molecular Weight** | 33,067 Da |
| **Chromosome Location** | Chromosome: 12; NC_000012.11 (4382902..4414522). Location: 12p13 |
| **OMIM** | 123833 |
| **3D Structure** | ModBase 3D Structure for P30279 |
| **Immunogen** | Full length human CCND2, aa1-289 (NP_001750.1). |
| **Immunogen Sequence** | MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEEEVFPLAMNYLDRFLAGVPTPKSHLQ |
| **Conjugate** | MaxLight490 |
| **Note** | Preservative Free |
| **Product Categories/Family for anti-CCND2 antibody** | Antibodies; Cyclin |
| **Applications Tested/Suitable for anti-CCND2 antibody** | Western Blot (WB) |
| **Application Notes for anti-CCND2 antibody** | Applications are based on unconjugated antibody. |

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| **Related Product Information for anti-CCND2 antibody** | Cyclins are proteins that regulate cell cycle progression by interacting with cdc2 kinase or related kinases. Human cyclins have been grouped into 5 typ kinase complex, the cyclin-CDK complex activates numerous genes involved in DNA synthesis and cell cycle progression. Cyclin D2 a G1 cyclin, is a m thus mediates the phosphorylation of tumor suppressor protein Rb during growth arrest. Knockout studies of the homologous gene in mouse suggest th |
| **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 neces |
| **Searchable Terms for CCND2 purchase** | MBS6375298 is an antibody targeting CCND2. Also known as Cyclin D2 (CCND2, G1/S-specific Cyclin-D2, KIAK0002, MGC102758) (MaxLight 490). F |

## ADDITIONAL DETAILS

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

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| **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 |
| **NCBI Official Full Name** | G1/S-specific cyclin-D2 |
| **NCBI Official Synonym Full Names** | cyclin D2 |
| **NCBI Official Symbol** | CCND2 |
| **NCBI Official Synonym Symbols** | 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; 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 and functions as a regulatory subunit of CDK4 or CDK6, 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. [provided by RefSeq, Oct 2008] |

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| **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.<br><br>Protein type: Motility/polarity/chemotaxis; Cell cycle regulation<br><br>Chromosomal Location of Human Ortholog: 12p13<br><br>Cellular Component: nucleoplasm; nuclear membrane; cyclin-dependent protein kinase holoenzyme complex; nucleolus; cytosol; chromatin; nucleus<br><br>Molecular Function: protein binding; protein kinase binding<br><br>Biological Process: positive regulation of cyclin-dependent protein kinase activity; cell division; positive regulation of protein amino acid phosphorylation; cell cycle<br><br>Disease: Megalencephaly-polymicrogyria-polydactyly-hydrocephalus Syndrome 3 |
| **Research Articles on CCND2** | **1.** Cyclin D2 is a direct target of miR-206 in breast cancer cells |
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