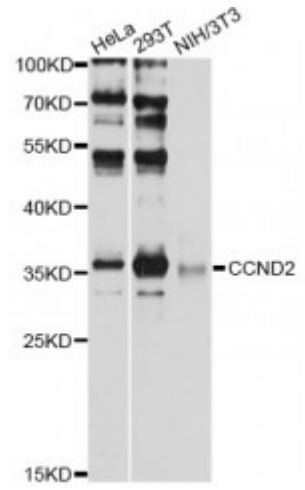
Anti-CCND2 Antibody



Description	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).
Model	STJ115249
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	IF, IHC, WB
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 1-289 of human CCND2 (NP_001750.1).
Gene ID	894
Gene Symbol	CCND2
Dilution range	WB 1:500 - 1:2000 IHC 1:50 - 1:200

	IF 1:50 - 1:200
Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	G1/S-specific cyclin-D2
Molecular Weight	33.067 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:1583OMIM:123833Reactome:R-HSA-69231
Alternative Names	G1/S-specific cyclin-D2
Function	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/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex ,
Cellular Localization	Nucleus
Post-translational Modifications	Polyubiquitinated by the SCF(FBXL2) complex, leading to proteasomal degradation,