

**Mouse Anti-Cyclin D2 [DCS-3]: MC0153, MC0153RTU7**

**Intended Use:** For Research Use Only

**Description:** The proliferation of eukaryotic cells is controlled at specific points in the cell cycle, particularly at the G1 to S and the G2 to M transitions. It is well established that the Cdc2 p34-cyclin B protein kinase plays a critical role in the G2 to M transition, while cyclin A associates with Cdk2 p33 and functions in S phase. Considerable effort directed towards the identification of G1 cyclins has led to the isolation of cyclin D, cyclin C and cyclin E. Of these, cyclin D corresponds to a putative human oncogene, designated PRAD1, which maps at the site of the Bcl-1 rearrangement in certain lymphomas and leukemias. Two additional human type D cyclins, as well as their mouse homologs, have been identified. Evidence has established that members of the cyclin D family function to regulate phosphorylation of the retinoblastoma gene product, thereby activating E2F transcription factors.

**Specifications:**

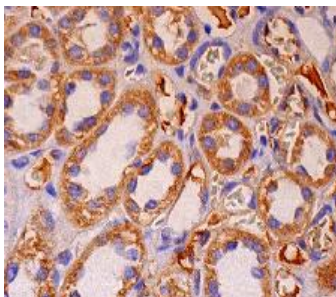
Clone: DCS-3  
 Source: Mouse  
 Isotype: IgG2a/k  
 Reactivity: Human, mouse, rat  
 Immunogen: Full length human Cyclin D2  
 Localization: Cytoplasm  
 Formulation: Antibody in PBS 7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA, ICC/IF, IP, WB  
 Package:

Description	Catalog No.	Size
Cyclin D2 Concentrated	MC0153	1 ml
Cyclin D2 Prediluted	MC0153RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Kidney  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 min Pressure Cooker or 30-60 min water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human kidney stained with anti-Cyclin D2 using DAB

**References:**

1. De novo CCND2 mutations leading to stabilization of cyclin D2 cause megalencephaly-polymicrogyria-polydactylyhydrocephalus syndrome. 4. Mirzaa, G.M., et al. Nat. Genet. 46: 510-515, 2014.
2. Tumour cell responses to new fibroblast growth factor receptor tyrosine kinase inhibitors and identification of a gatekeeper mutation in FGFR3 as a mechanism of acquired resistance. Chell, V., et al. Oncogene 32: 3059-3070, 2013.
3. Rosiglitazone inhibits cell proliferation by inducing G1 cell cycle arrest and apoptosis in ADPKD cyst-lining epithelia cells. Basic Clin. Pharmacol. 2.Liu, Y., et al. Toxicol. 106: 523-530, 2010.
4. Tumor suppressor p16INK4a determines sensitivity of human cells to transformation by cooperating cellular oncogenes. Drayton, S., et al. Cancer Cell 4: 301-310, 2003.