MAb to Cyclin D1

Clone Determination: DCS-6
Category: Mouse monoclonal
Immunoglobulin Class: IgG2a
Purification: Protein A affinity chromatography
Antigen: Human recombinant full-length cyclin D1 protein
Description/Specificity: DCS-6 reacts specifically with cyclin D1 protein present predominantly in G1 phase of cell cycle; it does not cross-react with D2 or D3 cyclins (the closest relatives within the cyclin family); DCS-6 is especially useful in tumor diagnosis: it can be used as fast method to identify cases with 11q13 amplifications. Cyclin D1 gene is identical to the BCL-1 and the PRAD-1 oncogene and is part of the chromosome 11q13 amplicon which is amplified in several common tumor types like breast, lung, esophagus, urinary bladder and head and neck carcinoma. Polypeptide reacting: Mr 36 000 polypeptide (cyclin D1 polypeptide of human cells)

Reactivities on Cultured Cell Lines (tested so far): MCF-7, MDA-MB-134 (breast cancer cell lines), UMSC22 (squamous cell carcinoma cell line), U-2-OS (osteosarcoma cell line) RT 112, A 431, HT 29 (for additional cell lines and their reaction patterns see ref. 1)

Antigen Recognized in Species (tested so far): Human, monkey, rat, mouse, dog, rodents

Application:
- Immunostaining of frozen and paraffin-embedded tissue and culture cells
  a) Paraffin without microwave treatment only after fixation in methacarn, ethanol or phenol formalin; weak reaction using routine formol-fixed paraffin sections
  b) Paraffin with microwave treatment for routine formalin-fixation
- Immunoblotting (Western blot)
- Immunoprecipitation
- Microinjection/in vitro neutralization of cyclin D1 function
- Flow cytometry

Reconstitution: Reconstitute in 1 ml dist. water (final solution contains 0.09 % NaN₃, 0.5% BSA in PBS buffer, pH 7.4)

Working Dilution: Dilute 1:10 with PBS, pH 7.4 for immunohistochemical application

Stability/Storage: Stable for one year after reconstitution when stored at 2-8°C. For extended storage keep in aliquots at -20°C. Avoid repeated thawing and freezing.

Incubation Time: 1 h at RT or overnight at 2-8°C for paraffin sections

Quantity: 50 µg (lyoph.)

References:

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