



product **AS06 153**

CDC2 | cell-division-cycle kinase 2

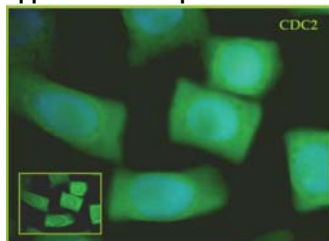
product information

background	Programmed cell death (PCD) is a fundamentally important biological process required to maintain the integrity and homeostasis of multicellular organisms during normal development and as a response to adverse environments. Cdc2 kinase, plays a major role in driving the cell cycle. Synonyms (for <i>Arabidopsis thaliana</i>): CDC2A, CDKA-1
immunogen	<u>KLH</u> -conjugated synthetic peptide derived from <i>Zea mays</i> CDC2 sequence <u>P23111</u> , well conserved in other plant species
antibody format	rabbit polyclonal serum, lyophilized
quantity	100 µl, for reconstitution add 100 µl, of sterile water.
storage	store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.
tested applications	western blot (WB), immunolocalization (IL)
additional information	to be added when available

application information

recommended dilution	1: 2000 - 1 : 10 000 with standard ECL (WB), 1: 500 (IL)
expected apparent MW	34-36 (<i>Zea mays</i>)
confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Hordeum vulgare</i> , <i>Oryza sativa</i> , <i>Zea mays</i> , <i>Vicia faba</i>
predicted reactivity	dicots including: <i>Pisum sativum</i> , <i>Solanum lycopersicum</i> , monocots including: <i>Triticum aestivum</i> , trees: <i>Pinus contorta</i> , <i>Populus balsamifera</i> , moss: <i>Physcomitrella patens</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	to be added when available
selected references	to be added when available

application example



Seeds of field bean (*Vicia faba* L. subsp. minor var. Nadwiślański; DANKO Group; Sobiejuchy) were sterilized using sodium hypochlorite (0.3% v/v) and germinated in Petri dishes on wetted filter paper at room temperature. At 4 d after imbibition, dark-grown seedlings with primary roots 25 ± 5 mm long were selected for experiments. During incubations roots were oriented horizontally in a humid chamber and aerated continuously on a rotary water-bath shaker (30 rpm) at 23°C.

Immunocytochemical assays were performed according to the method prescribed earlier (Rybaczek and Maszewski 2006). Excised apical parts of roots (1.5 mm long) were fixed for 45 min (18°C) in PBS-buffered 3.7% paraformaldehyde, washed several times with PBS and placed in a citric acid-buffered digestion solution (pH 5.0; 37°C for 45 min) containing 2.5% pectinase (Fluka), 2.5% cellulase (Onozuka R-10; Serva) and 2.5% pectoliase (ICN). After removing the digestion solution, root tips were washed 3 times in PBS, rinsed with distilled water and squashed onto Super Frost Plus glass slides (Menzel-Gläser). Air-dried slides were pretreated with PBS-buffered 5% BSA at 20°C for 50 min and incubated overnight in a humidified atmosphere (4°C) with rabbit antibody raised against CDC2 (Agrisera), dissolved in PBS containing 1% BSA (at a dilution of 1:500). Following incubation, slides were washed 3 times with PBS and incubated for 1 h (18°C) with secondary goat anti-rabbit IgG DyLight®488 antibody ([AS09 633](#), Agrisera; 1:3000). Nuclear DNA was stained with 4',6-diamidino-2-phenyl-indole (DAPI, 0.4 µg/ml; Sigma-Aldrich). Following washing with PBS, slides were air dried and embedded in Vectashield Mounting Media for Fluorescence (Vector Laboratories). Observations were made using Optiphot-2 fluorescence microscope (Nikon) equipped with B-2A filter (blue light; 495 nm) for DyLight-conjugated antibodies and UV-2A filter (UV light; 365 nm) for DAPI. All images were recorded at exactly the same time of integration using DXM 1200 CCD camera.

Courtesy Dr. Dorota Rybaczek, Lodz University, Poland



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