DB097: Rb (1F8)

Background:

The pocket protein family consists of three structurally and functionally related proteins, Rb, p107, and p130 (1). This family of tumor suppressors function to regulate important cellular transcription factors, such as the E2F family (1,2). The E2F proteins regulate the expression of genes whose products are important for cell cycle progression. The inactivation Rb is catalyzed by CDK phosphorylation thereby releasing E2F during the G1-S phase cellular progression (3). Unchecked inactivation of Rb in G1 phase has been indicated as a universal mechanism underlying cellular transformation (4,5). While Rb has been the most studied among the pocket proteins, p107 and p130 have also been shown to be key regulators of E2F (6). Several studies have also provided evidence that p107/p130 provide different functions in E2F regulation than does Rb (6,7). Rb, p107, and p130 each contain a conserved 'A/B pocket', which is the target of several viral oncoproteins, namely SV40 large T-antigen and adenovirus E1A (8).

Origin:

Rb (1F8) is provided as a mouse monoclonal IgG_1 antibody derived by fusion of spleen cells from a mouse immunized with a human recombinant full length Rb protein with Sp2/0-Ag14 myeloma cells.

Product Details:

Each vial contains 200 µg/ml of mouse monoclonal IgG_1, Rb (1F8) DB097, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Specificity:

Rb (1F8) DB097 reacts with Rb of mouse, rat, and human origin by western blotting, immunopreciptation, and immunohistochemistry (including paraffin-embedded sections). Western blotting starting dilution: 1:100. Positive control K562 WCL.

Storage:

Store this product at 4º C, do not freeze. The product is stable for one year from the date of shipment.

References:

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3. Classon M., Dyson N. 2001. p107 and p130: versatile proteins with interesting pockets. Exp Cell Res 264(1):135-147.
4. Hatakeyama M., Weinberg R.A. 1995. The role of RB in cell cycle control. Prog Cell Cycle Res 1:9-19.
5. Nevins J.R. 2001. The Rb/E2F pathway and cancer. Hum Mol Genet 10(7):699-703.
6. Hurford R.K., Cobrinik D., Lee M.H., Dyson N. 1997. pRB and p107/p130 are required for the regulated expression of different sets of E2F responsive genes. Genes Dev 11(11):1447-1463.
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8. Knudsen E.S., Wang J.Y. 1998. Hyperphosphorylated p107 and p130 bind to T-antigen: identification of a critical regulatory sequence present in RB but not in p107/p130. Oncogene 16(13):1655-1663.

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