DATA SHEET

Retinoblastoma (Rb) Ab-1 (Clone 1F8; same as Rb1)

Mouse Monoclonal Antibody

Cat. #DLN-06253, DLN-06254, or DLN-06252 (0.1ml, 0.5ml, or 1ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #DLN-06255, or DLN-06256 (0.1ml, or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #DLN-06250, DLN-06251, or DLN-06249 (0.1ml, 0.5ml, or 1ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)
Cat. #DLN-06257 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)

Description: Rb is a tumor suppressor nuclear phosphoprotein capable of binding to DNA. It is phosphorylated on serine and threonine, but not on tyrosine residues. It forms a complex with SV40 large T antigen, adenovirus E1A, and human papilloma virus-16 E. Rb protein may act by regulating transcription and loss of its function leads to uncontrolled cell growth. Aberrations in the RB gene have been implicated in cancers of breast, colon, prostate, kidney, nasopharynx, and leukemia.

Comments: Ab-1 specifically stains the nuclei of BT-20 cells and primary human foreskin fibroblast (HFF) cells.[1] It reacts with hyperphosphorylated and un (under) phosphorylated form of Rb protein. It shows no cross reaction with p107 and p130.

Mol. Wt. of Antigen: 105kDa

Epitope: aa703-722

Species Reactivity: Human.[1] Does not react with mouse and rat. Others-not known.

Clone Designation: 1F8 (same as Rb1)

Ig Isotype: IgG_1

Immunogen: Recombinant human Rb protein[1]

Applications and Suggested Dilutions:

- Flow Cytometry
- Immunofluorescence[1]
- Immunoprecipitation (Native and denatured)
  (Use Protein G) (Ab 2µg/mg protein lysate)
- Western Blotting (Ab 1-2µg/ml for 2hrs at RT)
- Immunohistology (Formalin/paraffin)
  (Ab 1-2µg/ml for 30 min at RT)

* (Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 1mM EDTA, pH 8.0 for 10-20 min followed by cooling at RT for 20 min.)
[EDTA is better than citrate for epitope unmasking]

The optimal dilution for a specific application should be determined by the investigator.

dianova GmbH
Warburgstr. 45 ● 20354 Hamburg
Telefon (040)45067-0 ● Telefax (040) 45067-490 ● www.dianova.de

DATA SHEET

Retinoblastoma (Rb) Ab-1 (Clone 1F8; same as Rb1)

Mouse Monoclonal Antibody

Cat. #DLN-06253, DLN-06254, or DLN-06252 (0.1ml, 0.5ml, or 1ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #DLN-06255, or DLN-06256 (0.1ml, or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #DLN-06250, DLN-06251, or DLN-06249 (0.1ml, 0.5ml, or 1ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)
Cat. #DLN-06257 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)

Positive Control: Ls174T, HT29, HUVEC cells. Normal colon and carcinoma. Breast carcinoma.

Cellular Localization: Nuclear

Supplied As:

200µg/ml antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

or

Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

Storage and Stability:

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Key References:

1. Bartek J, *et. al.* Oncogene 7:101-108, 1992.
2. Grand R et. al. Oncogene. 4:1291-1298, 1989.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. Dianova is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

For Research Use Only

dianova GmbH
Warburgstr. 45 ● 20354 Hamburg
Telefon (040)45067-0 ● Telefax (040) 45067-490 ● www.dianova.de

DATA SHEET

Retinoblastoma (Rb) Ab-1 (Clone 1F8; same as Rb1)

Mouse Monoclonal Antibody

Cat. #DLN-06253, DLN-06254, or DLN-06252 (0.1ml, 0.5ml, or 1ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #DLN-06255, or DLN-06256 (0.1ml, or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #DLN-06250, DLN-06251, or DLN-06249 (0.1ml, 0.5ml, or 1ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)

Cat. #DLN-06257 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)

Additional KeyReferences:

1. Aagaard L; Lukas J; Bartkova J; Kjerulff AA; Strauss M; Bartek J. Aberrations of p16Ink4 and retinoblastoma tumour-suppressor genes occur in distinct sub-sets of human cancer cell lines. International Journal of Cancer, 1995, 61(1):115-20.

2. Bartkova J; Lukas J; Muller H; Strauss M; Gusterson B; Bartek J. Abnormal patterns of D-type cyclin expression and G1 regulation in human head and neck cancer. Cancer Research, 1995, 55:949-56.

3. Bartkova J; Lukas J; Muller H; Lutzhoft D; Strauss M; Bartek J. Cyclin D1 protein expression and function in human breast cancer. International Journal of Cancer, 1994, 57(3):353-61.

4. Bartkova J; Lukas J; Strauss M; Bartek J. The PRAD-1/cyclin D1 oncogene product accumulates aberrantly in a subset of colorectal carcinomas. International Journal of Cancer, 1994, 58(4):568-73.

5. Hickman ES; Picksley SM; Vousden KH. Cells expressing HPV16E7 continue cell cycle progression following DNA damage induced p53 activation. Oncogene, 1994, 9:2177-81.

6. Lukas J; Jadayel D; Bartkova J; Nacheva E; Dyer MJ; Strauss M; Bartek J. BCL-1/cyclin D1 oncoprotein oscillates and subverts the G1 phase control in B-cell neoplasms carrying the t(11;14) translocation. Oncogene, 1994, 9(8):2159-67.

7. Lukas J; Muller H; Bartkova J; Spitkovsky D; Kjerulff AA; Jansen-Durr P; Strauss M; Bartek J. DNA tumor virus oncoproteins and retinoblastoma gene mutations share the ability to relieve the cell's requirement for cyclin D1 function in G1. Journal of Cell Biology, 1994, 125(3):625-38.

8. Bartek J, Vojtesek B, Grand RJA, Gallimore PH, and Lane DP. Cellular localization and T antigen binding of the retinoblastoma protein. Oncogene 7:101-108, 1992.

dianova GmbH

Warburgstr. 45 ● 20354 Hamburg

Telefon (040)45067-0 ● Telefax (040) 45067-490 ● www.dianova.de