


Mouse anti-human Retinoblastoma Monoclonal Antibody **(Clone 1F8; same as Rb1)**

REFERENCES AND PRESENTATIONS¹

- **ready-to-use (ml)**
MAD-000900QD-3
MAD-000900QD-7
MAD-000900QD-12
- **MD-Stainer presentations²**
MAD-000900QD-3/V
MAD-000900QD/V
- **concentrated**
MAD-000900Q - 1:50 recommended
dilution

COMPOSITION

Anti-human Retinoblastoma mouse monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide
INTENDED USE  Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

CLONE: Retinoblastoma/pRb (1F8)

Ig ISOTYPE: Mouse IgG1

IMMUNOGEN: Recombinant human Rb protein1

SPECIES REACTIVITY: In vitro diagnostics in humans.
Not tested in other species



DESCRIPTION AND APPLICATIONS: 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. 90% of neoplasias express moderately or intensely pRb (carcinomas of the breast, colon, stomach, endometrium, head and neck, lung, neuroendocrine, gliomas, lymphomas, melanoma, ovarian, pancreatic, kidney, urothelial, cutaneous and thyroid). The alteration of the Rb gene with the absence of nuclear expression of pRb has been demonstrated in some human tumors, including retinoblastoma, breast carcinoma, prostate cancer, lung cancer and some sarcomas.

IHC POSITIVE CONTROL: Normal colon and carcinoma. Breast carcinoma.

VISUALIZATION: Nuclear

IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Master Diagnóstica EDTA buffer pH8³ for 20 min at 95°C. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 10 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

STORAGE AND STABILITY:  up to 18 months;
 stored at 2-8°C. Do not freeze.

WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory.md@vitro.bio.

BIBLIOGRAPHY

1. Stefanini M, De Martino C and Zamboni L. Fixation of ejaculated spermatozoa for electron microscopy. *Nature*. **216**: 173-174. 1967.

³ Ref: MAD-004072R/D

¹ These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:
- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).
- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).
For different presentations (references / volumes) please contact the supplier.

² For Technical specifications for MD-Stainer, please contact your distributor.



2. Varley J M, Armour J, Swallow J E, et al. The retinoblastoma gene is frequently altered leading to loss of expression in primary breast tumours. *Oncogene*. **4**: 725-729. 1989.
3. Sanders B M, Jay M, Draper G J, et al.. Non-ocular cancer in relatives of retinoblastoma patients. *British Journal of Cancer*. **60**: 358-365. 1989.
4. Bartek J, Vojtěšek B, Grand R J A, et al. Cellular localization and T antigen binding of the retinoblastoma protein. *Oncogene*. **7**: 101-108. 1992.
5. Karpeh M S, Brennan M F, Cance W G, et al.. Altered patterns of retinoblastoma gene product expression in adult soft-tissue sarcomas. *British Journal of Cancer*. **72**: 986-991. 1995.
6. Jares P, Campo E, Pinyol M, et al. Expression of retinoblastoma gene product (pRb) in mantle cell lymphomas: correlation with cyclin D1 (PRAD1/CCND1) mRNA levels and proliferative activity. *American Journal of Pathology*. **148 (5)**: 1591-1600. 1996.
7. Jares P, Rey M J, Fernández P L, et al. Cyclin D1 and retinoblastoma gene expression in human breast carcinoma: correlation with tumour proliferation and oestrogen receptor status. *Journal of Pathology*. **182**: 160-166. 1997.

