Datasheet for ABIN4949859

anti-Retinoblastoma Protein (Rb) antibody (AA 703-772)

1 Image

Go to Product page

Overview

Quantity:	100 µg
Target:	Retinoblastoma Protein (Rb) (Rb Protein)
Binding Specificity:	AA 703-772
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Retinoblastoma Protein (Rb) antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	A human recombinant partial protein was used as the immunogen for this Rb antibody. The epitope is localized within amino acids 703-772.
Clone:	1F8
Isotype:	IgG1 kappa
Purification:	Protein G affinity chromatography

Target Details

Target:	Retinoblastoma Protein (Rb) (Rb Protein)
Alternative Name:	Retinoblastoma / Rb (Rb Protein Products)

Target Details

Background:	The retinoblastoma protein (protein name abbreviated pRb, gene name abbreviated RB or RB1) is a tumor suppressor protein that is dysfunctional in several major cancers. One function of pRb is to prevent excessive cell growth by inhibiting cell cycle progression until a cell is ready to divide. When the cell is ready to divide, pRb is phosphorylated, becomes inactive and allows cell cycle progression. It is also a recruiter of several chromatin remodeling enzymes such as methylases and acetylases. Rb restricts the cell's ability to replicate DNA by preventing its progression from the G1 (first gap phase) to S (synthesis phase) phase of the cell division cycle. Rb binds and inhibits transcription factors of the E2F family, which are composed of dimers of an E2F protein and a dimerization partner (DP) protein. The transcription activating complexes of E2 promoter-binding-protein-dimerization partners (E2F-DP) can push a cell into S phase. As long as E2F-DP is inactivated, the cell remains stalled in the G1 phase. When Rb is bound to E2F, the complex acts as a growth suppressor and prevents progression through the cell cycle. The Rb-E2F/DP complex also attracts a histone deacetylase (HDAC) protein to the chromatin, reducing transcription of S phase promoting factors, further suppressing DNA synthesis.[Wiki] mAb 1F8 ecognizes a 105 kDa phosphoprotein, identified as retinoblastoma (Rb) gene product. It shows no cross reaction with p107 or p130. It specifically stains the nuclei of BT-20 cells and primary human foreskin fibroblast (HFF) cells. It does not stain the Rb-negative BT549 cells. It reacts with the hyperphosphorylated as well as the un (under) phosphorylated form of the Rb protein.
Pathways:	Mitotic G1-G1/S Phases

Application Details

Application Notes:	Titering of the Rb antibody may be required for optimal performance.\. WB: 0.5-1 µg/mL,IP: 1-2 µg/500 µg protein lysate,IHC (FFPE): 1-2 µg/mL for 30 min at RT
Restrictions:	For Research Use only

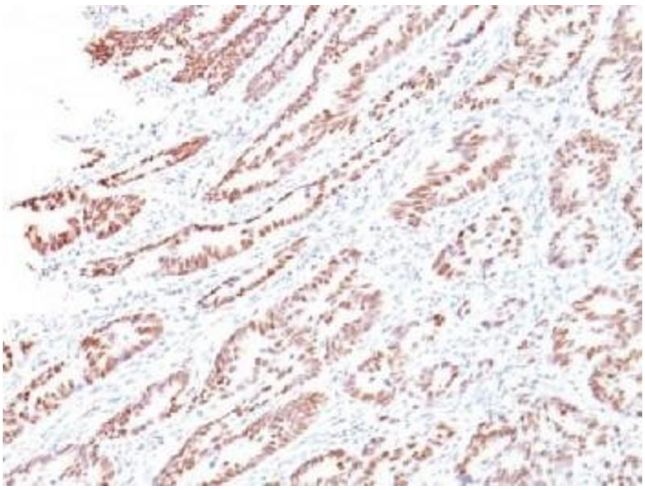
Handling

Concentration:	0.2 mg/mL
Buffer:	0.2 mg/mL in 1X PBS with 0.1 mg/mL BSA (US sourced) and 0.05 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage:	4 °C,-20 °C
Storage Comment:	The Rb antibody (with azide) can be stored at 2-8°C. The azide-free format should be aliquoted and stored at -20°C or colder.

Images



Immunohistochemistry

Image 1. IHC testing of human colon with Rb antibody (clone 1F8). Required HIER: boil tissue sections in 10mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min.