abcam

Product datasheet

Anti-Rb antibody [Rb1 1F8] ab24

★★★★★ 4 Abreviews 13 References 2 图像

概述

产品名称	Anti-Rb抗体[Rb1 1F8]
描述	**小鼠单克隆抗体**[Rb1 1F8] to Rb
特异性	This antibody reacts with hyperphosphorylated and un (under) phosphorylated forms of Rb protein.
经测试应用	**适用于:** WB, IP, IHC-Fr
种属反应性	**与反应:** Mouse, Human **预测可用于:** Chicken, Chimpanzee
免疫原	Rb-b-galactosidase fusion protein spanning nucleotides 1126-1973 of human Rb gel purified from bacterial lysates (R. Grand et al. 1989). Run BLAST with ExPASy Run BLAST with NCBI
表位	The epitope has been mapped between aa 703-772 of human RB1.
阳性对照	Tested in a panel of human cell lines and CV-1 cell line (established from monkey kidney epithelium).

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	Constituent: PBS
纯度	Immunogen affinity purified
克隆	单克隆
克隆编号	Rb1 1F8
骨髓瘤	Sp2/0-Ag14
同种型	IgG1

应用

Our Abpromise guarantee covers the use of **ab24** in the following tested applications.

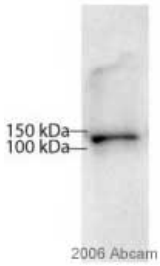
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
WB	★★★★★	Use at an assay dependent concentration. Predicted molecular weight: 105 kDa.
IP		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.

靶标

功能	Key regulator of entry into cell division that acts as a tumor suppressor. Promotes G0-G1 transition when phosphorylated by CDK3/cyclin-C. Acts as a transcription repressor of E2F1 target genes. The underphosphorylated, active form of RB1 interacts with E2F1 and represses its transcription activity, leading to cell cycle arrest. Directly involved in heterochromatin formation by maintaining overall chromatin structure and, in particular, that of constitutive heterochromatin by stabilizing histone methylation. Recruits and targets histone methyltransferases SUV39H1, KMT5B and KMT5C, leading to epigenetic transcriptional repression. Controls histone H4 'Lys-20' trimethylation. Inhibits the intrinsic kinase activity of TAF1. Mediates transcriptional repression by SMARCA4/BRG1 by recruiting a histone deacetylase (HDAC) complex to the c-FOS promoter. In resting neurons, transcription of the c-FOS promoter is inhibited by BRG1-dependent recruitment of a phospho-RB1-HDAC1 repressor complex. Upon calcium influx, RB1 is dephosphorylated by calcineurin, which leads to release of the repressor complex (By similarity). In case of viral infections, interactions with SV40 large T antigen, HPV E7 protein or adenovirus E1A protein induce the disassembly of RB1-E2F1 complex thereby disrupting RB1's activity.
组织特异性	Expressed in the retina.
疾病相关	Childhood cancer retinoblastoma Bladder cancer Osteogenic sarcoma
序列相似性	Belongs to the retinoblastoma protein (RB) family.
结构域	The Pocket domain binds to the threonine-phosphorylated domain C, thereby preventing interaction with heterodimeric E2F/DP transcription factor complexes.
翻译后修饰	Phosphorylated by CDK6 and CDK4, and subsequently by CDK2 at Ser-567 in G1, thereby releasing E2F1 which is then able to activate cell growth. Dephosphorylated at the late M phase. SV40 large T antigen, HPV E7 and adenovirus E1A bind to the underphosphorylated, active form of pRb. Phosphorylation at Thr-821 and Thr-826 promotes interaction between the C-terminal domain C and the Pocket domain, and thereby inhibits interactions with heterodimeric E2F/DP transcription factor complexes. Dephosphorylated at Ser-795 by calcineruin upon calcium stimulation. CDK3/cyclin-C-mediated phosphorylation at Ser-807 and Ser-811 is required for G0-G1 transition. Phosphorylated by CDK1 and CDK2 upon TGFB1-mediated apoptosis. N-terminus is methylated by METTL11A/NTM1 (By similarity). Monomethylation at Lys-810 by SMYD2 enhances phosphorylation at Ser-807 and Ser-811, and promotes cell cycle progression. Monomethylation at Lys-860 by SMYD2 promotes interaction with L3MBTL1. Acetylation at Lys-873 and Lys-874 regulates subcellular localization, at least during keratinocytes differentiation.
细胞定位	Nucleus.

图片



Western blot - Anti-Rb antibody [Rb1 1F8] (ab24)

Anti-Rb antibody [Rb1 1F8] (ab24) at 1/1000 dilution + Human Fibroblast cell lysate(nuclear). 16 hour incubation.

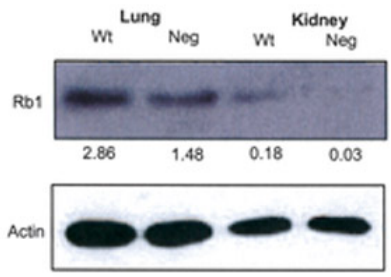
Secondary
NIF 825 (provided in ECL kit) - HRP conjugated
Developed using the ECL technique

Performed under reducing conditions.

Predicted band size : 105 kDa
Observed band size : 100-150 kDa

Exposure time : 1 minute

This image is courtesy of an Abreview submitted on **5 October 2005.**



Western blot - Anti-Rb antibody [Rb1 1F8] (ab24)

Image from Lee DY et al, PLoS One 5:e13599 (2010), Fig 3.

Predicted band size : 105 kDa

Image from Lee DY et al, PLoS One 5:e13599 (2010), Fig 3.

Lysates prepared from lung and kidney of VerUTR transgenic and wildtype mice were analyzed by Western Blot probed with ab24. Increased expression of Rb1 was detected in the organs from the VerUTR transgenic mice.

Cells were seeded onto 6-well plates at 2×10^5 cells per well overnight. They were then transfected with 1 µg of VerUTR or control vector in combination with scrambled RNA or siRNA against VerUTR. Proteins were extracted 48 hours after transfection by lysing in 60 µl of lysis buffer containing protease inhibitors (150 mM NaCl, 25 mM Tris-HCl, pH 8.0, 0.5 mM EDTA, 1% Triton X-100, 8 M Urea, and 1x protease inhibitor cocktail). Tissues were disrupted in appropriate volume of lysis buffer depending on tissue weight. All samples were subjected to SDS-PAGE and then transferred to nitrocellulose membranes followed by incubating with ab24 at 1/500 dilution at 4°C overnight. The secondary antibody used was goat anti-mouse IgG at 1/2000 dilution at room temperatu

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