# abcam

# Product datasheet

# Anti-Rb (phospho T252) antibody [EPR17733] ab184797



重组 RabMAb

#### ★★★★★ 1 Abreviews 6 图像

#### 概述

产品名称 Anti-Rb (phospho T252)抗体[EPR17733]

描述 兔单克隆抗体[EPR17733] to Rb (phospho T252)

宿主 Rabbit

经测试应用 适用于: Dot blot, WB, IHC-P

种属反应性 与反应: Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: K562 and MCF7 whole cell lysates. IHC-P: Human colon and squamous cell carcinoma of

cervix tissues.

常规说明 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

#### 性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

存储溶液 pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

纯度 Protein A purified

单克隆 克隆

克隆编号 EPR17733

同种型 ΙgG

#### The Abpromise quarantee

#### Abpromise™承诺保证使用ab184797于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Dot blot		1/1000.
WB		1/1000. Detects a band of approximately 106 kDa (predicted molecular weight: 106 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

#### 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.

Nucleus.

### 图片



Western blot - Anti-Rb (phospho T252) antibody [EPR17733] (ab184797)

**All lanes :** Anti-Rb (phospho T252) antibody [EPR17733] (ab184797) at 1/1000 dilution

**Lane 1 :** K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate

Lane 2: K562 whole cell lysate serum starved for 3 days

Lysates/proteins at 20 µg per lane.

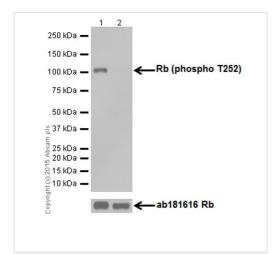
## Secondary

**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 106 kDa **Observed band size:** 106 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 2% BSA /TBST.



Western blot - Anti-Rb (phospho T252) antibody [EPR17733] (ab184797) **All lanes :** Anti-Rb (phospho T252) antibody [EPR17733] (ab184797) at 1/1000 dilution

**Lane 1 :** MCF7 (Human breast adenocarcinoma cell line) whole cell lysate

Lane 2: MCF7 whole cell lysate serum starved for 3 days

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution

Predicted band size: 106 kDa

Observed band size: 106 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 2% BSA /TBST.

Secondary antibody, only control

Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Rb (phospho T252) antibody [EPR17733] (ab184797)

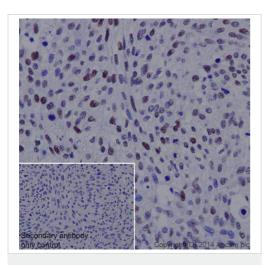
Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Rb (phospho T252) with ab184797 at 1/1000 dilution, followed by Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Nuclear staining on sporadic epithelium cells of Human colon is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Rb (phospho T252) antibody [EPR17733] (ab184797)

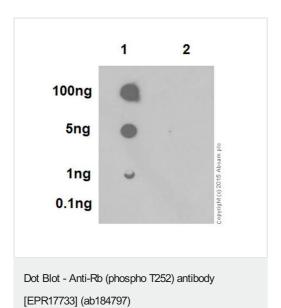
Immunohistochemical analysis of paraffin-embedded Human squamous cell carcinoma of cervix tissue labeling Rb (phospho T252) with ab184797 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Nuclear staining on tumor cells of Human squamous cell carcinoma of cervix.is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

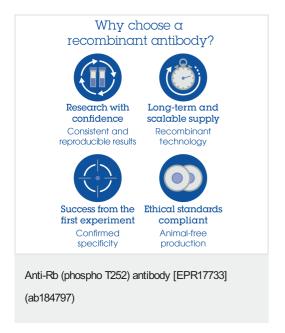
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Dot blot analysis of Rb (phospho T252) phospho peptide (Lane 1) and Rb Non-phospho peptide (Lane 2) labeled using ab184797 at 1/1000 dilution, followed by Goat Anti-Rabbit lgG H&L (HRP) (ab97051) secondary antibody (ab97051) at 1/1000 dilution.

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes.



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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