# abcam

## Product datasheet

# Anti-Rb (phospho S780) antibody [EPR182(N)] ab173289

יעלעבע RabMAb

★★★★★ 1 Abreviews 15 References 画像数 10

#### 製品の概要

製品名 Anti-Rb (phospho S780) antibody [EPR182(N)]

製品の詳細 Rabbit monoclonal [EPR182(N)] to Rb (phospho S780)

由来種 Rabbit

アプリケーション 適用あり: Dot blot, IHC-P. WB

適用なし: Flow Cyt,ICC/IF or IP

種交差性 交差種: Human

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

ポジティブ・コントロール Jurkat cell lysate; Human thyroid gland carcinoma and testis tissues.

特記事項 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**.

#### 製品の特性

製品の状態 Liquid

保存方法 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.

バッファー Preservative: 0.01% Sodium azide

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

精製度 Protein A purified

ポリ/モノ モノクローナル クローン名 EPR182(N)

アイソタイプ lgG

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab173289の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Dot blot		1/1000.
IHC-P	****(1)	1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/10000. Predicted molecular weight: 106 kDa.

追加情報

Is unsuitable for Flow Cyt,ICC/IF or IP.

#### ターゲット情報

機能

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.

組織特異性

関連疾患

Childhood cancer retinoblastoma

Expressed in the retina.

Bladder cancer
Osteogenic sarcoma

配列類似性

Belongs to the retinoblastoma protein (RB) family.

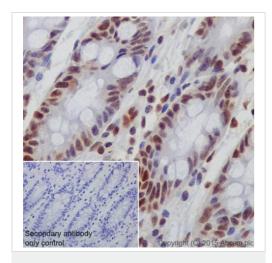
ドメイン

The Pocket domain binds to the threonine-phosphorylated domain C, thereby preventing interaction with heterodimeric E2F/DP transcription factor complexes.

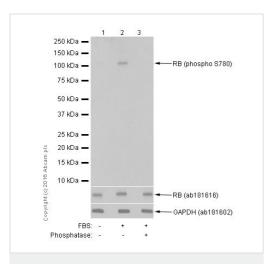
翻訳後修飾

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.

#### 画像



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)



Western blot - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Rb (phospho S780) with ab173289 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Nucleus staining on normal human colon.

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 citrate buffer pH 6 before commencing with IHC staining protocol.

**All lanes :** Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289) at 1/50000 dilution

**Lane 1 :** Jurkat (Human T cell leukemia T lymphocyte) serum starved for 44 h. Whole cell lysates

Lane 2: Jurkat (Human T cell leukemia T lymphocyte) serum starved for 24 h. Then 10% FBS incubated for 20 h. Whole cell lysates

**Lane 3**: Jurkat (Human T cell leukemia T lymphocyte) serum starved for 24 h. Then 10% FBS incubated for 20 h. Whole cell lysates Then the membrane was incubated with phosphatase.

Lysates/proteins at 15 µg per lane.

# **Secondary**

**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

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

#### Exposure time: 1 minute

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

**All lanes :** Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289) at 1/20000 dilution

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

**Lane 2**: K562(Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate, serum starved for 2 days

Lysates/proteins at 10 µg per lane.



**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/50000 dilution

Predicted band size: 106 kDa

Blocking/Dilution buffer:5% NFDM/TBST

Exposure time:1 minute

**All lanes :** Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289) at 1/5000 dilution

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

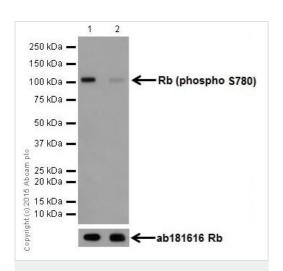
**Lane 2**: Calyculin A treated K562(Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate

Lysates/proteins at 10 µg per lane.

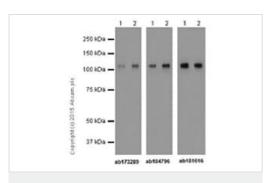
### **Secondary**

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

Predicted band size: 106 kDa



Western blot - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)



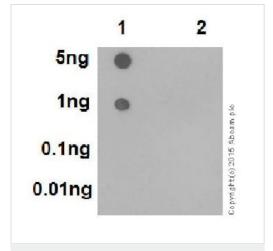
Western blot - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)

Blocking/Dilution buffer:NFDM/TBST

Ab173289: anti- Rb (phospho S780);

Ab184796: anti- Rb (phospho S807);

Ab181616: anti-Rb

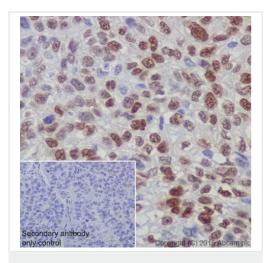


Dot Blot - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)

Dot blot analysis of Rb (phospho S780) peptide (Lane 1),Rb(non-phospho) peptide (Lane 2) with ab173289 at a dilution of 1/1000.ab97051 (Peroxidase conjugated goat anti-rabbit lgG (H+L) was used as the secondary antibody at a dilution of 1/1000.

Blocking and dilution buffer:5% NFDM/TBST.

Exposure time:3 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)

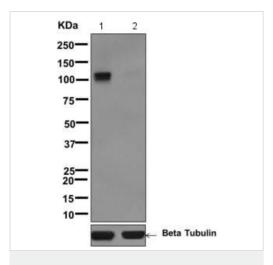
Immunohistochemical analysis of paraffin-embedded Lung squamous cell carcinoma labeling Rb (phospho S780) with ab173289 at 1/100 dilution,followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Nucleus staining on tumor cells of lung squamous cell carcinoma.

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 citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)

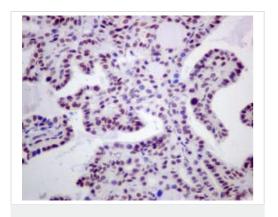
**All lanes**: Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289) at 1/1000 dilution

Lane 1: Jurkat cell lysate

Lane 2: Jurkat cell lysate treated with Lambda Phosphatase

Lysates/proteins at 10 µg per lane.

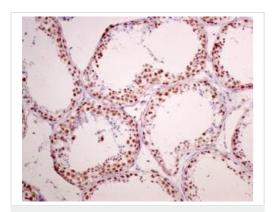
Predicted band size: 106 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)

Immunohistochemical analysis of paraffin-embedded Human thyroid gland carcinoma tissue labeling Rb with ab173289 at 1/50 dilution.

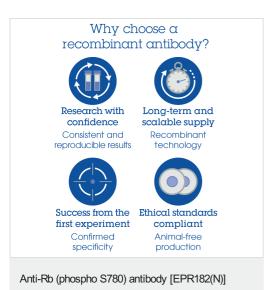
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Rb (phospho S780) antibody [EPR182(N)] (ab173289)

Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling Rb with ab173289 at 1/50 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



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

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