abcam

Product datasheet

HRP Anti-DNA PKcs antibody [Y393] ab195537

敲除验证 重组 RabMAb

3 图像

概述

产品名称	HRP Anti-DNA PKcs抗体[Y393]
描述	HRP兔单克隆抗体[Y393] to DNA PKcs
宿主	Rabbit
偶联物	HRP
经测试应用	**适用于:** WB
种属反应性	**与反应:** Human **预测可用于:** Mouse, Rat
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: K562 whole cell lysate.
常规说明	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. Avoid freeze / thaw cycle. Store In the Dark.
存储溶液	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
纯度	Protein A purified
克隆	单克隆
克隆编号	Y393
同种型	IgG

应用

The Abpromise guarantee	**Abpromise™承诺保证使用**ab195537**于以下的**经测试应用

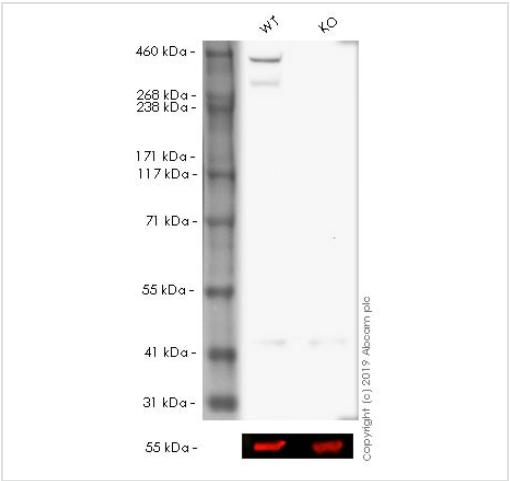
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/5000. Detects a band of approximately 460 kDa (predicted molecular weight: 469 kDa).

靶标

功能	Serine/threonine-protein kinase that acts as a molecular sensor for DNA damage. Involved in DNA nonhomologous end joining (NHEJ) required for double-strand break (DSB) repair and V(D)J recombination. Must be bound to DNA to express its catalytic properties. Promotes processing of hairpin DNA structures in V(D)J recombination by activation of the hairpin endonuclease artemis (DCLRE1C). The assembly of the DNA-PK complex at DNA ends is also required for the NHEJ ligation step. Required to protect and align broken ends of DNA. May also act as a scaffold protein to aid the localization of DNA repair proteins to the site of damage. Found at the ends of chromosomes, suggesting a further role in the maintenance of telomeric stability and the prevention of chromosomal end fusion. Also involved in modulation of transcription. Recognizes the substrate consensus sequence [ST]-Q. Phosphorylates 'Ser-139' of histone variant H2AX/H2AFX, thereby regulating DNA damage response mechanism. Phosphorylates DCLRE1C, c-Abl/ABL1, histone H1, HSPCA, c-jun/JUN, p53/TP53, PARP1, POU2F1, DHX9, SRF, XRCC1, XRCC1, XRCC4, XRCC5, XRCC6, WRN, MYC and RFA2. Can phosphorylate C1D not only in the presence of linear DNA but also in the presence of supercoiled DNA. Ability to phosphorylate p53/TP53 in the presence of supercoiled DNA is dependent on C1D.
序列相似性	Belongs to the PI3/PI4-kinase family. Contains 1 FAT domain. Contains 1 FATC domain. Contains 2 HEAT repeats. Contains 1 PI3K/PI4K domain. Contains 3 TPR repeats.
翻译后修饰	Phosphorylated upon DNA damage, probably by ATM or ATR. Autophosphorylated on Thr-2609, Thr-2638 and Thr-2647. Thr-2609 is a DNA damage-inducible phosphorylation site (inducible with ionizing radiation, IR). Autophosphorylation induces a conformational change that leads to remodeling of the DNA-PK complex, requisite for efficient end processing and DNA repair. S-nitrosylated by GAPDH.
细胞定位	Nucleus.

图片



Western blot - HRP Anti-DNA PKcs antibody [Y393] (ab195537)

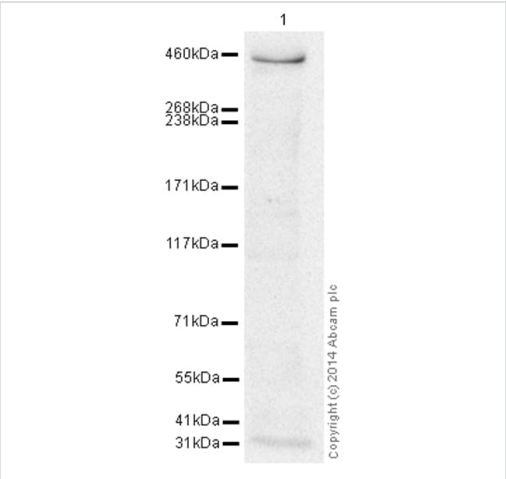
All lanes : HRP Anti-DNA PKcs antibody [Y393] (ab195537) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : PRKDC knockout HAP1 whole cell lysate

Lysates/proteins at 40 µg per lane.

Predicted band size: 469 kDa
Observed band size: 460 kDa

ab195537 was shown to recognize in wild-type HAP1 cells as signal was lost at the expected MW in PRKDC knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and PRKDC knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab195537 and **ab7291** (Mouse anti Tubulin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.



Western blot - HRP Anti-DNA PKcs antibody [Y393] (ab195537)

HRP Anti-DNA PKcs antibody [Y393] (ab195537) at 1/5000 dilution + K562 (Human erythromyeloblastoid leukemia cell line) Whole Cell Lysate at 10 µg

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 469 kDa
Observed band size: 460 kDa

Exposure time: 20 minutes

This blot was produced using a 3-8% Tris Acetate gel under the TA buffer system. The gel was run at 150V for 60 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab195537 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.

HRP Anti-DNA PKcs antibody [Y393] (ab195537)

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