abcam

Product datasheet

Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] ab125001

敲除验证 重组 RabMAb

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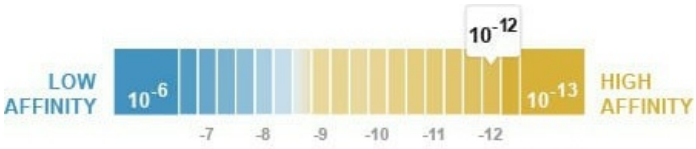
概述

产品名称	Anti-Retinoid X Receptor alpha/RXRA抗体[EPR7106]
描述	兔单克隆抗体[EPR7106] to Retinoid X Receptor alpha/RXRA
宿主	Rabbit
经测试应用	**适用于:** WB, IP, ICC/IF **不适用于:** Flow Cyt or IHC-P
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Synthetic peptide corresponding to Human Retinoid X Receptor alpha/RXRA (N terminal).
阳性对照	WB: MCF7, HeLa, K562, RAW 264.7, PC12 and NIH 3T3 cell lysates, Wild-type HCT116 cell lysate. ICC/IF: MCF7 cells and wild-type HCT116 cells. IP: HeLa whole cell lysate.
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.
解离常数 (K_D)	K_D = 1.40 x 10^{-12} M



Learn more about K_D

存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 0.05% BSA, 40% Glycerol
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR7106
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab125001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	★★★★★ (3)	1/1000 - 1/10000. Detects a band of approximately 54 kDa (predicted molecular weight: 51 kDa).
IP		1/10 - 1/100.
ICC/IF		Use a concentration of 0.2 µg/ml. **For unpurified use at 1/100 - 1/250 dilution.**

应用说明 Is unsuitable for Flow Cyt or IHC-P.

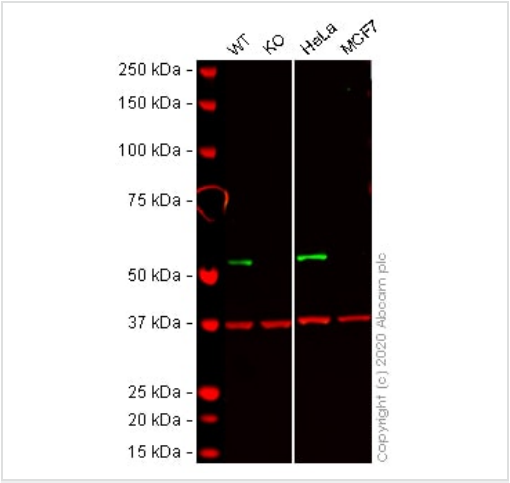
靶标

功能	Receptor for retinoic acid. Retinoic acid receptors bind as heterodimers to their target response elements in response to their ligands, all-trans or 9-cis retinoic acid, and regulate gene expression in various biological processes. The RAR/RXR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5. The high affinity ligand for RXRs is 9-cis retinoic acid. RXRA serves as a common heterodimeric partner for a number of nuclear receptors. The RXR/RAR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5. In the absence of ligand, the RXR-RAR heterodimers associate with a multiprotein complex containing transcription corepressors that induce histone acetylation, chromatin condensation and transcriptional suppression. On ligand binding, the corepressors dissociate from the receptors and associate with the coactivators leading to transcriptional activation. The RXRA/PPARA heterodimer is required for PPARA transcriptional activity on fatty acid oxidation genes such as ACOX1 and the P450 system genes.
组织特异性	Highly expressed in liver, also found in lung, kidney and heart.
序列相似性	Belongs to the nuclear hormone receptor family. NR2 subfamily. Contains 1 nuclear receptor DNA-binding domain.
结构域	Composed of three domains: a modulating N-terminal domain (AF1 domain), a DNA-binding domain and a C-terminal ligand-binding domain (AF2 domain).
翻译后修饰	Phosphorylated on serine and threonine residues mainly in the N-terminal modulating domain.

Constiutively phosphorylated on Ser-21 in the presence or absence of ligand. Under stress conditions, hyperphosphorylated by activated JNK on Ser-56, Ser-70, Thr-82 and Ser-260 (By similarity). Phosphorylated on Ser-27, in vitro, by PKA. This phosphorylation is required for repression of cAMP-mediated transcriptional activity of RARA.
Sumoylation negatively regulates transcriptional activity. Desumoylated specifically by SENP6.

细胞定位 Nucleus.

图片



Western blot - Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001)

All lanes : Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001) at 1/1000 dilution

Lane 1 : Wild-type HCT116 cell lysate
Lane 2 : RXRA knockout HCT116 cell lysate
Lane 3 : HeLa cell lysate
Lane 4 : MCF7 cell lysate

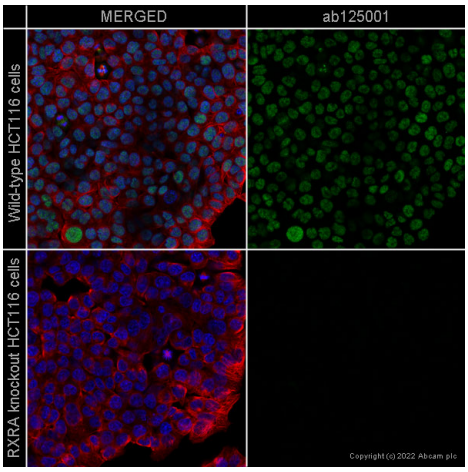
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 51 kDa
Observed band size: 53 kDa

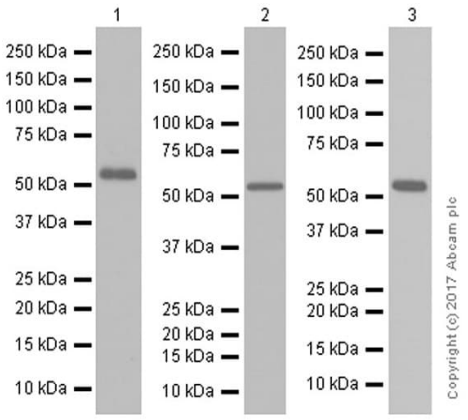
Lanes 1 - 4: Merged signal (red and green). Green - ab125001 observed at 53 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab125001 was shown to react with Anti-Retinoid X Receptor alpha in HCT 116 wild-type cells in western blot with loss of signal observed in RXRA knockout cell line **ab273708** (RXRA knockout cell lysate **ab275245**). HCT 116 wild-type and RXRA knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab125001 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001)

ab125001 staining Retinoid X Receptor alpha in wild-type HCT116 cells (top panel) and RXRA knockout HCT116 cells (bottom panel) (**ab273708**). The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab125001 at 0.2µg/ml concentration and **ab7291** (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Western blot - Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001)

All lanes : Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001) at 1/1000 dilution (purified)

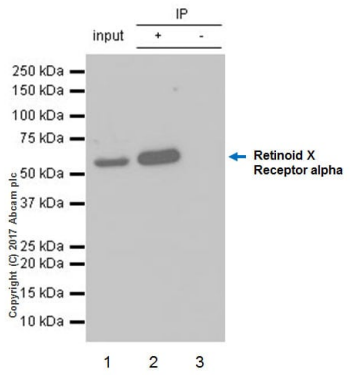
Lane 1 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates
Lane 2 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates
Lane 3 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lysates/proteins at 15 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 51 kDa

Blocking and diluting buffer: 5% NFDM/TBST.

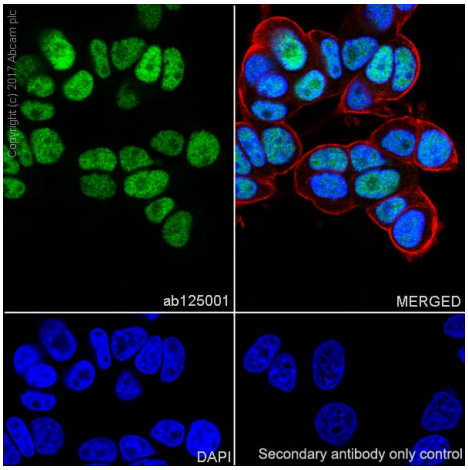


Immunoprecipitation - Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001)

ab125001 (purified) at 1:20 dilution (0.6µg) immunoprecipitating Retinoid X Receptor alpha/RXRA in HeLa whole cell lysate.

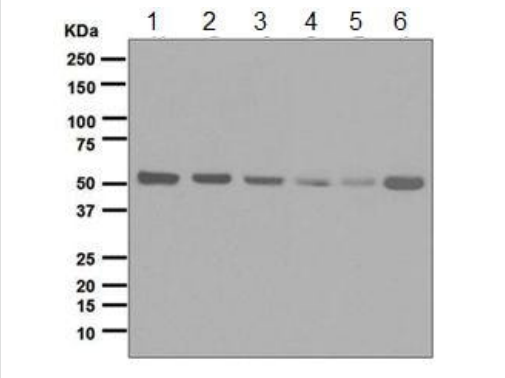
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate, 10µg.
Lane 2 (+): ab125001 & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab125001 in HeLa whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.



Immunocytochemistry/ Immunofluorescence - Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001)

Immunocytochemistry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling Retinoid X Receptor alpha/RXRA with Purified ab125001 at 1:500 dilution. Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor ® 594) 1:200 (2.5 µg/ml). **ab150077** Goat anti rabbit IgG(Alexa Fluor ® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001)

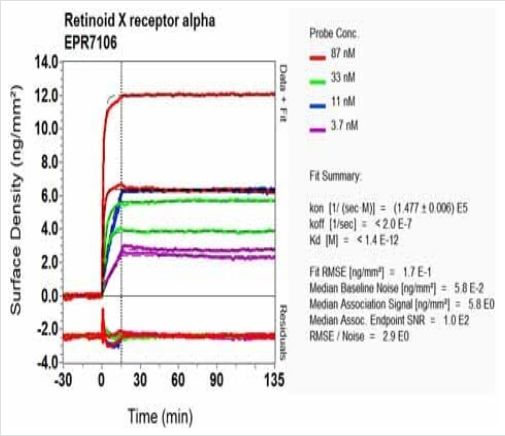
All lanes : Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001) at 1/1000 dilution (unpurified)

Lane 1 : MCF7 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : K562 cell lysate
Lane 4 : RAW 264.7 cell lysate
Lane 5 : PC12 cell lysate
Lane 6 : NIH 3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-Rabbit HRP at 1/2000 dilution

Predicted band size: 51 kDa

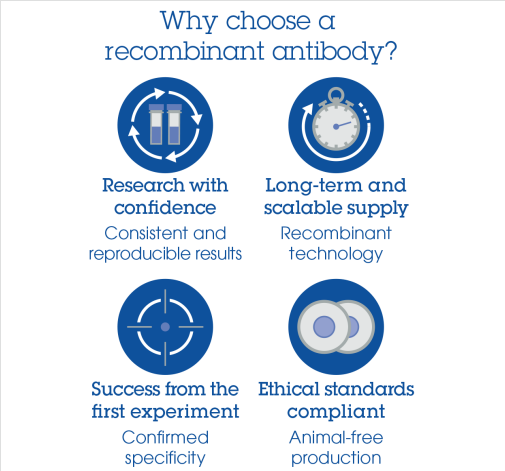


OI-RD Scanning - Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106] (ab125001)

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