

Product datasheet

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

Recombinant RabMAb

★★★★★ 5 Abreviews 5 References 5 Images

Overview

Product name	Anti-Retinoid X Receptor alpha/RXRA antibody [EPR7106]
Description	Rabbit monoclonal [EPR7106] to Retinoid X Receptor alpha/RXRA
Host species	Rabbit
Tested applications	Suitable for: WB, IP, ICC/IF Unsuitable for: Flow Cyt or IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human Retinoid X Receptor alpha/RXRA (N terminal).
Positive control	MCF7, HeLa, K562, RAW 264.7, PC12 and NIH 3T3 cell lysates.
General notes	This product was previously labelled as Retinoid X Receptor alpha

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](#).

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

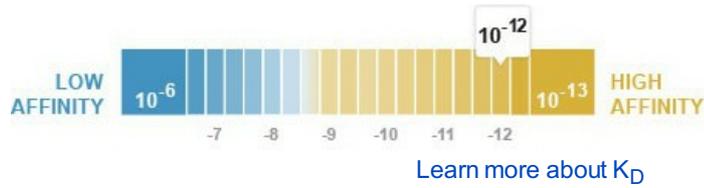
Properties

Form	Liquid
Storage instructions	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.

Dissociation constant (K_D)

K_D = 1.40 x 10⁻¹² M



Storage buffer

pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 0.05% BSA, 40% Glycerol

Purity

Protein A purified

Clonality

Monoclonal

Clone number

EPR7106

Isotype

IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab125001** in the following tested applications.

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

Application	Abreviews	Notes
WB	★★★★★	1/1000 - 1/10000. Detects a band of approximately 54 kDa (predicted molecular weight: 51 kDa).
IP		1/10 - 1/100.
ICC/IF		1/500. For unpurified use at 1/100 - 1/250.

Application notes

Is unsuitable for Flow Cyt or IHC-P.

Target

Function

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.

Tissue specificity

Highly expressed in liver, also found in lung, kidney and heart.

Sequence similarities

Belongs to the nuclear hormone receptor family, NR2 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

Domain

Composed of three domains: a modulating N-terminal domain (AF1 domain), a DNA-binding domain and a C-terminal ligand-binding domain (AF2 domain).

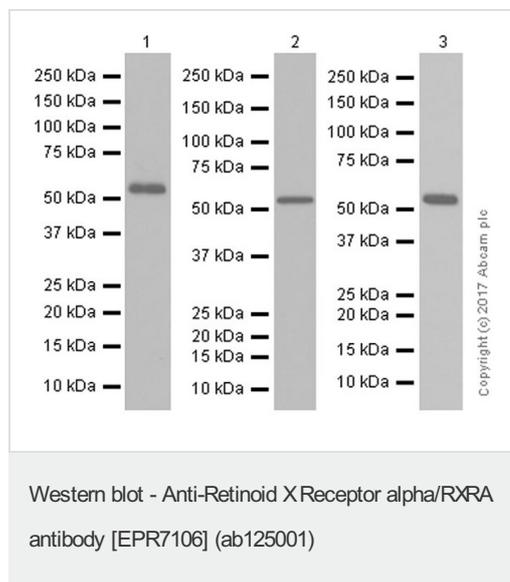
Post-translational modifications

Phosphorylated on serine and threonine residues mainly in the N-terminal modulating domain. Constitutively 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.

Cellular localization

Nucleus.

Images



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

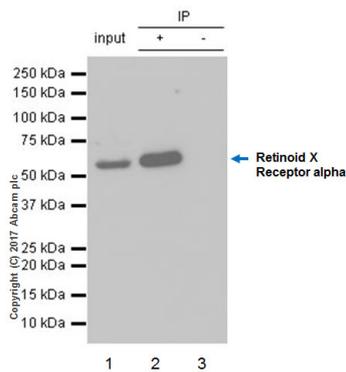
Lysates/proteins at 15 µg per lane.

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% NFD/MTBST.



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.

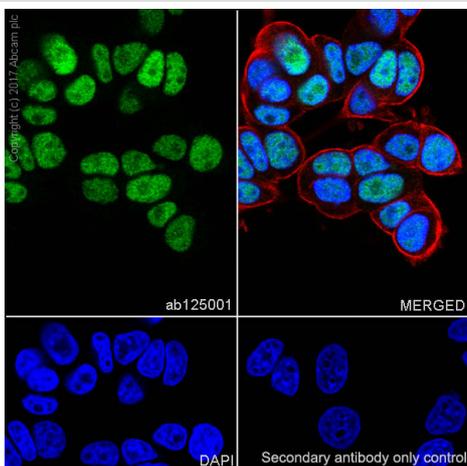
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate, 10µg.

Lane 2 (+): ab125001 & HeLa whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab125001 in HeLa whole cell lysate

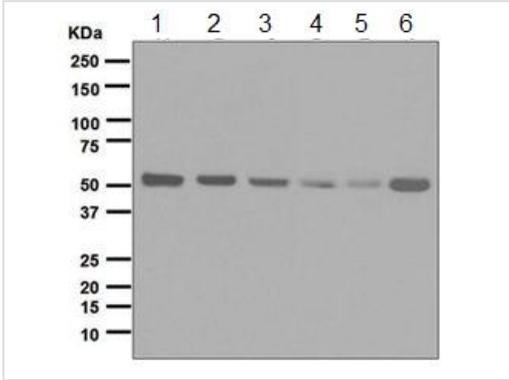
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.

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

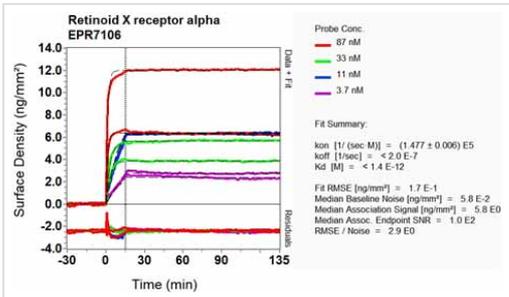
Lane 6 : NIH 3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

Predicted band size: 51 kDa



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

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

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