

Product datasheet

Anti-Estrogen Related Receptor alpha antibody [EPR46Y] ab76228

KO VALIDATED Recombinant RabMAb

★★★★☆ 1 Abreviews 36 References 6 Images

Overview

Product name	Anti-Estrogen Related Receptor alpha antibody [EPR46Y]
Description	Rabbit monoclonal [EPR46Y] to Estrogen Related Receptor alpha
Host species	Rabbit
Tested applications	Suitable for: WB, IP, Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Estrogen Related Receptor alpha aa 1-100 (N terminal). The exact sequence is proprietary.
Positive control	HeLa whole cell lysate (ab150035)
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR46Y
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab76228 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)	1/1000 - 1/10000. Predicted molecular weight: 55 kDa.
IP		1/20.
Flow Cyt		1/20.

Target

Function

Binds to an ERR-alpha response element (ERRE) containing a single consensus half-site, 5'-TNAAGGTCA-3'. Can bind to the medium-chain acyl coenzyme A dehydrogenase (MCAD) response element NRRE-1 and may act as an important regulator of MCAD promoter. Binds to the C1 region of the lactoferrin gene promoter. Requires dimerization and the coactivator, PGC-1A, for full activity. The ERRalpha/PGC1alpha complex is a regulator of energy metabolism.

Sequence similarities

Belongs to the nuclear hormone receptor family. NR3 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

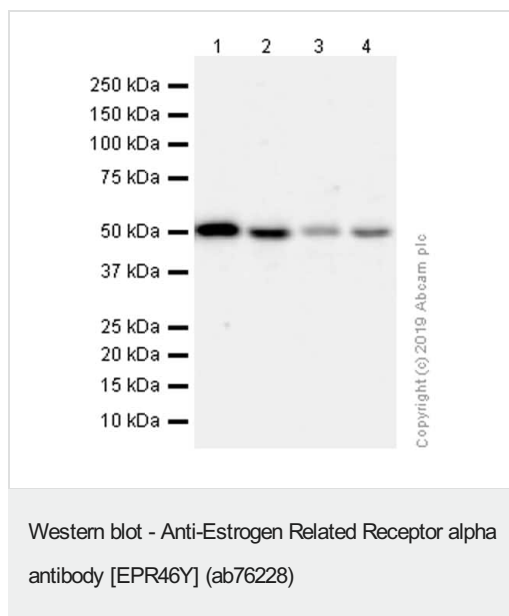
Post-translational modifications

Phosphorylation on Ser-19 enhances sumoylation on Lys-14 increasing repression of transcriptional activity.
Sumoylated by SUMO2. Main site is Lys-14 which is enhanced by phosphorylation on Ser-19, cofactor activation, and by interaction with PIAS4. Sumoylation enhances repression of transcriptional activity, but has no effect on subcellular location nor on DNA binding.

Cellular localization

Nucleus.

Images



All lanes : Anti-Estrogen Related Receptor alpha antibody [EPR46Y] (ab76228) at 1/1000 dilution (Purified)

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

Lane 2 : Mouse brain lysate

Lane 3 : Mouse kidney lysate

Lane 4 : Rat brain lysate

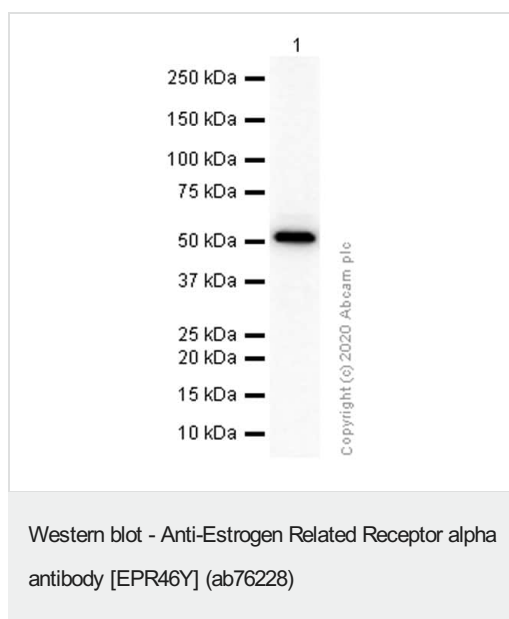
Lysates/proteins at 20 µg per lane.

Secondary

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

Predicted band size: 55 kDa

Observed band size: 55 kDa



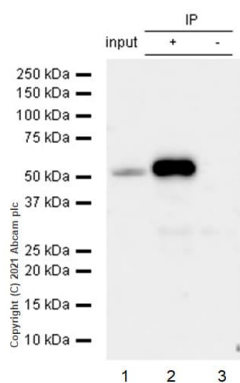
Anti-Estrogen Related Receptor alpha antibody [EPR46Y] (ab76228) at 1/1000 dilution (Purified) + HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 15 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 55 kDa

Observed band size: 55 kDa



Immunoprecipitation - Anti-Estrogen Related Receptor alpha antibody [EPR46Y] (ab76228)

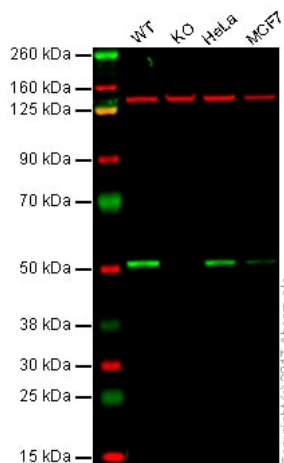
ab76228 used at 1:20 dilution (2µg) immunoprecipitating Estrogen Related Receptor alpha in HeLa whole cell lysates.

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

Lane 2 (+): HeLa whole cell lysate.

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab190685** in HeLa whole cell lysate.

For western blotting, **ab227648** and VeriBlot for IP Detection Reagent (HRP)(**ab131366**) at 1/1000 dilution were used.



Western blot - Anti-Estrogen Related Receptor alpha antibody [EPR46Y] (ab76228)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

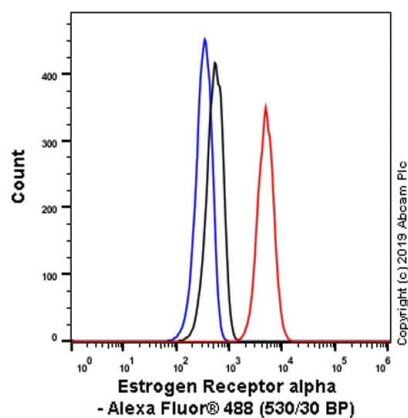
Lane 2: Estrogen Related Receptor alpha knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: MCF7 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab76228 observed at 55 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab76228 was shown to specifically react with Estrogen Related Receptor alpha in wild-type HAP1 cells as signal was lost in Estrogen Related Receptor alpha knockout cells. Wild-type and Estrogen Related Receptor alpha knockout samples were subjected to SDS-PAGE. Ab76228 and **ab18058** (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed 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 1/10000 dilution for 1 hour at room temperature before imaging.



Flow Cytometry - Anti-Estrogen Related Receptor
alpha antibody [EPR46Y] (ab76228)

Flow cytometric analysis of 4% Paraformaldehyde fixed 90% Methanol permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling Estrogen Receptor alpha with ab76228 at 1/20 dilution (10 µg/ml) compared with a Rabbit monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) at 1/2000 was used as the secondary antibody.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Estrogen Related Receptor alpha antibody
[EPR46Y] (ab76228)

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

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