

Product datasheet

Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade ab108398

Recombinant **RabMAb**

★★★★★ 7 Abreviews 8 References 12 Images

Overview

Product name	Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade
Description	Rabbit monoclonal [EPR4097] to Estrogen Receptor alpha - ChIP Grade
Host species	Rabbit
Specificity	Expression levels of ER alpha protein vary with sample type.
Tested applications	Suitable for: WB, IHC-P, Flow Cyt, ChIP, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment within Human Estrogen Receptor alpha aa 1-300. The exact sequence is proprietary.
Positive control	WB: MCF7 and T47-D cell lysates. IHC-P: Human breast ductal infiltrating carcinoma and normal breast tissues. ICC/IF: MCF-7 cells.
General notes	A trial size is available to purchase for this antibody.

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.

This product is a [recombinant rabbit monoclonal antibody](#).

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. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4097
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab108398** in the following tested applications.

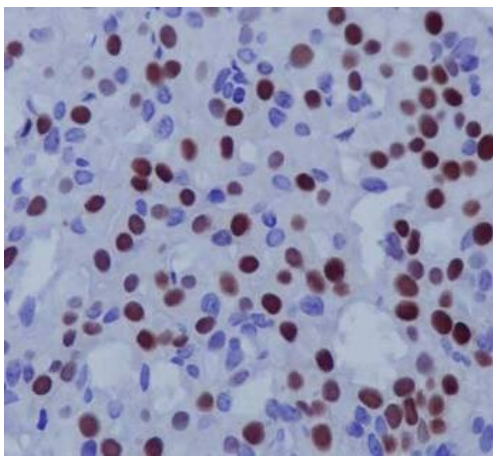
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★	1/1000 - 1/10000. Predicted molecular weight: 66 kDa. For unpurified use at 1/200 - 1/1000.
IHC-P		1/250. See IHC antigen retrieval protocols . For unpurified use at 1/30.
Flow Cyt		Use at an assay dependent concentration.
ChIP	★★★★★	Use at an assay dependent concentration.
ICC/IF		1/250. For unpurified use at 1/30.

Target

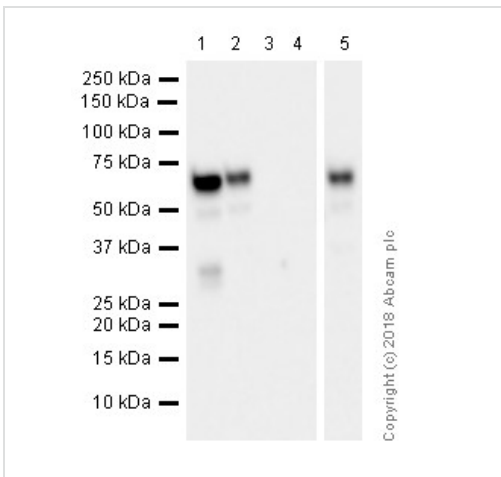
Function	Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Can activate the transcriptional activity of TFF1.
Sequence similarities	Belongs to the nuclear hormone receptor family. NR3 subfamily. Contains 1 nuclear receptor DNA-binding domain.
Domain	Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.
Post-translational modifications	Phosphorylated by cyclin A/CDK2. Phosphorylation probably enhances transcriptional activity. Glycosylated; contains N-acetylglucosamine, probably O-linked. Ubiquitinated. Deubiquitinated by OTUB1. Dimethylated by PRMT1 at Arg-260. The methylation may favor cytoplasmic localization. Palmitoylated (isoform 3). Not biotinylated (isoform 3).
Cellular localization	Nucleus. Cytoplasm. Cell membrane. A minor fraction is associated with the inner membrane and Nucleus. Cytoplasm. Cell membrane. Associated with the inner membrane via palmitoylation.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast tissue labelling Estrogen Receptor alpha with purified ab108398 at 1/250. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Counterstained with Hematoxylin.



Western blot - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

All lanes : Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398) at 1/2000 dilution

Lane 1 : MCF7 (Human breast adenocarcinoma epithelial cell). Whole cell lysates

Lane 2 : T-47D (human mammary gland ductal carcinoma epithelial cell). Whole cell lysates

Lane 3 : MDA-MB231 (Human breast adenocarcinoma epithelial cell) Whole cell lysates (Negative control)

Lane 4 : HepG2 (Human hepatocellular carcinoma epithelial cell) Whole cell lysates (Negative control)

Lane 5 : Human uterus whole tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

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

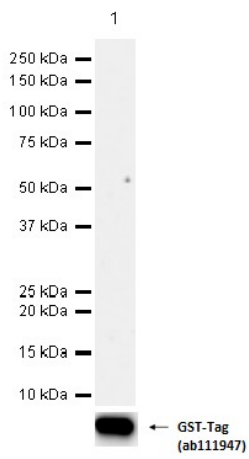
Predicted band size: 66 kDa

Observed band size: 68 kDa

[why is the actual band size different from the predicted?](#)

Exposure time: 10 seconds

Blocking and diluting buffer: 5% NFDN/TBST



Western blot - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398) at 1/1000 dilution + GST-Tagged Recombinant Human Estrogen Receptor beta (aa 1 to 323) protein 100ng

Secondary

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

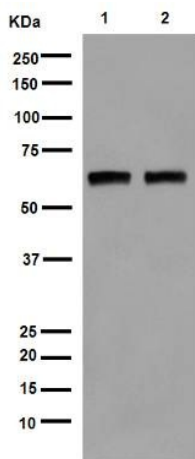
Predicted band size: 66 kDa

Exposure time: 180 seconds

Blocking/Diluting buffer and concentration: 5% NFDm/TBST

Lane 1: Recombinant Human Estrogen Receptor beta (aa 1 to 323) protein, (Cat#: [ab158385](#))

There is no cross-reactivity between ab108398 and ER beta protein.



Western blot - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

All lanes : purified at 1/2000 dilution

Lane 1 : MCF-7 cell lysate

Lane 2 : T47-D cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

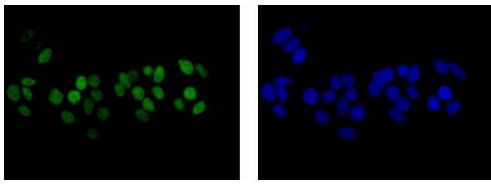
All lanes : Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 66 kDa

Observed band size: 67 kDa [why is the actual band size different from the predicted?](#)

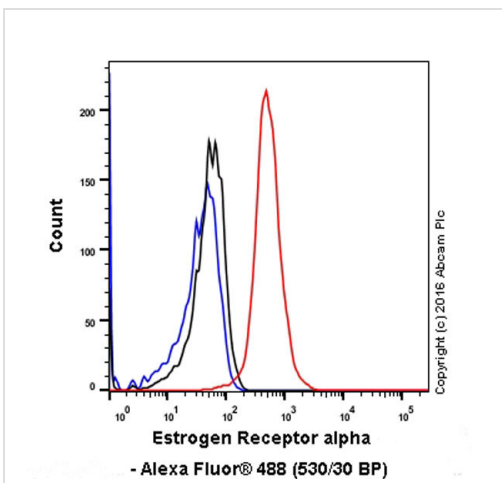
Blocking buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm /TBST.



Immunocytochemistry/ Immunofluorescence - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

Immunocytochemistry/Immunofluorescence analysis of MCF-7 cells labelling Estrogen Receptor alpha (green) with purified ab108398 at 1/200. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/200) was used as the secondary antibody. Counterstained with DAPI (blue).

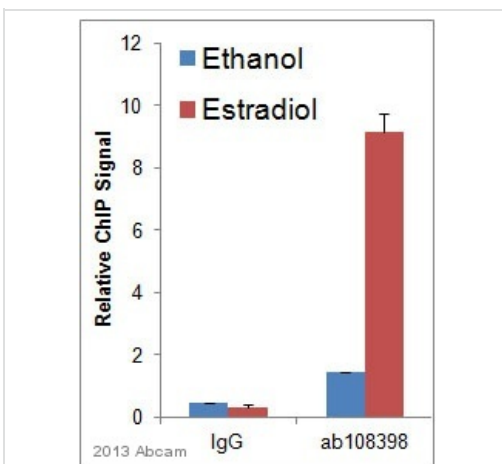


Flow Cytometry - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

ab108398 staining Estrogen Receptor alpha in the human cell line MCF-7 (human breast carcinoma) by flow cytometry. Cells were fixed with 4% paraformaldehyde, permeabilized with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/20. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isotype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)



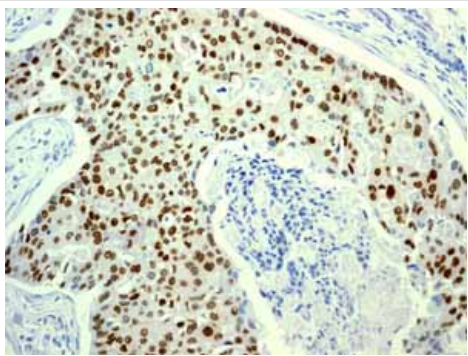
ChIP - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

This image is courtesy of an anonymous Abreview

ChIP analysis using unpurified ab108398 binding Estrogen Receptor alpha in MCF7 cells derived from Human breast carcinoma. Cells were cross-linked for 10 minutes with 1% formaldehyde. Samples were incubated with undiluted primary antibody for 16 hours at 4°C. Protein binding was detected using real-time PCR.

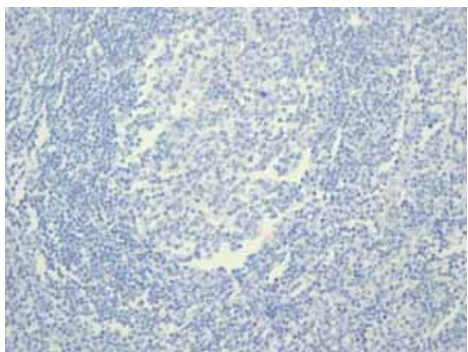
Positive control: Estrogen treated MCF7 cells tested at PS2 promoter.

Negative Control: IgG ChIP and ethanol-depleted cells tested at PS2 promoter.



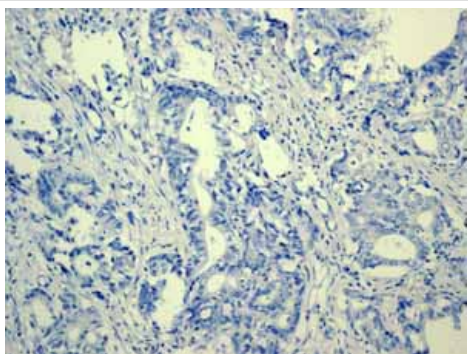
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast ductal infiltrating carcinoma tissue labelling Estrogen Receptor alpha with unpurified ab108398.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)



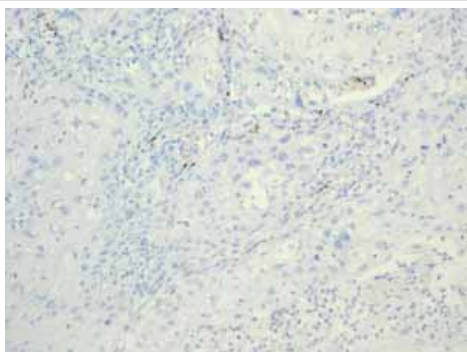
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human normal tonsil tissue. Unpurified ab108398 shows negative staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)



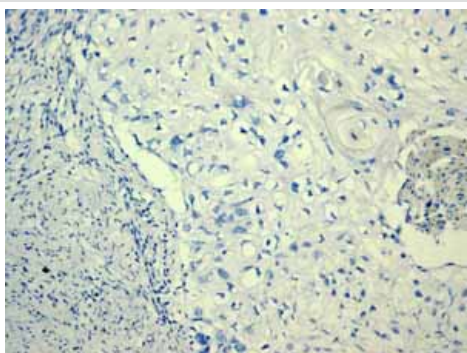
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colonic adenocarcinoma tissue. Unpurified ab108398 shows negative staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung adenocarcinoma tissue. Unpurified ab108398 shows negative staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [EPR4097] - ChIP Grade (ab108398)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cervical carcinoma tissue. Unpurified ab108398 shows negative staining.

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