

Product datasheet

Anti-Estrogen Receptor alpha antibody [SP1] ab16660

RabMAb

★★★★★ 5 Abreviews 20 References 11 Images

Overview

<b>Product name</b>	Anti-Estrogen Receptor alpha antibody [SP1]
<b>Description</b>	Rabbit monoclonal [SP1] to Estrogen Receptor alpha
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF, IHC-FoFr, Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Pig ▲
<b>Immunogen</b>	Synthetic peptide within Human Estrogen Receptor alpha aa 550 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: <a href="#">P03372</a>
<b>Epitope</b>	C-terminal
<b>Positive control</b>	WB: MCF7 cell lysate. IHC-P: Human breast carcinoma, cervix, breast, breast ductal carcinoma and ovarian adenocarcinoma tissue. ICC/IF: MCF7 cells. IHC-Fr: Mouse intestine tissue. FC: MCF7 cells
<b>General notes</b>	Abcam recommended secondaries - Goat Anti-Rabbit HRP ( <a href="#">ab205718</a> ) and Goat Anti-Rabbit Alexa Fluor® 488 ( <a href="#">ab150077</a> ).  See other <a href="#">anti-rabbit secondary antibodies</a> that can be used with this antibody.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.50 Preservative: 0.1% Sodium azide Constituents: 1% BSA, Tris buffered saline
<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	SP1
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab16660** 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		1/25. Predicted molecular weight: 67 kDa. Incubate for 1 hour at room temperature.
IHC-P		1/200.
ICC/IF	★★★★★	1/25 - 1/250.
IHC-FoFr		Use at an assay dependent concentration. PubMed: 29403069
Flow Cyt		1/200.

## Target

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### 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

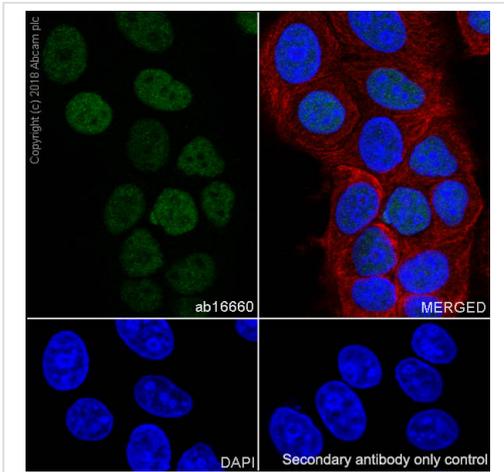
Phosphorylated by cyclin A/CDK2. Phosphorylation probably enhances transcriptional activity.  
Glycosylated; contains N-acetylglucosamine, probably O-linked.  
Ubiquitinated. Deubiquitinated by OTUB1.  
Dimethylated by PRMT1 at Arg-260. The methylation may favor cytoplasmic localization.  
Palmitoylated (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.

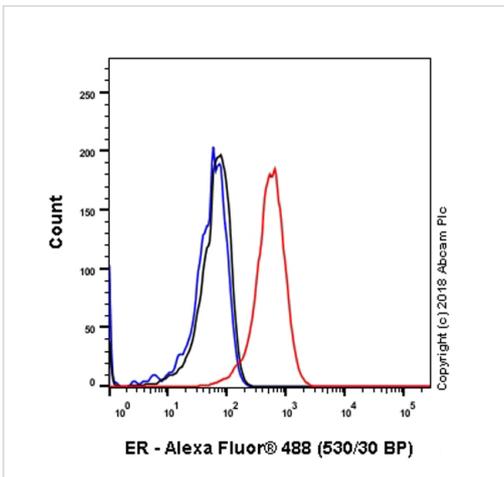
## Images

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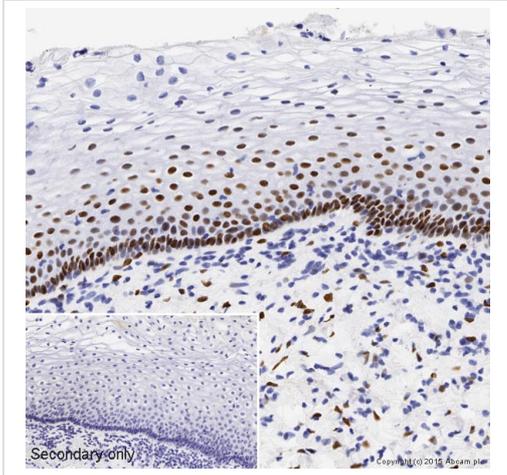
Immunocytochemistry/ Immunofluorescence - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

Immunocytochemistry/ Immunofluorescence analysis of MCF7 (human breast adenocarcinoma epithelial cell) cells labeling Estrogen Receptor alpha with purified ab16660 at 1/25 (8.5 µg/ml). Cells were fixed in 100% Methanol. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

Flow cytometry analysis of MCF7 (human breast adenocarcinoma epithelial cell) labeling Estrogen Receptor alpha with purified ab16660 at 1/200 dilution (1.06 µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as a secondary antibody. Isotype control - Rabbit monoclonal IgG (ab172730) (black). Unlabeled control - Unlabelled cells (blue).

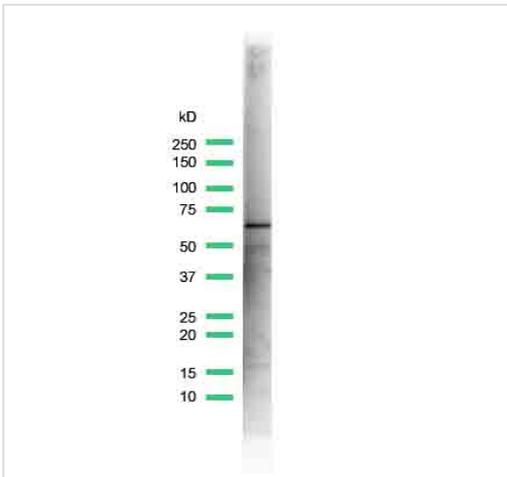


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

IHC image of ab16660 staining Estrogen Receptor alpha in normal human cervix formalin-fixed paraffin-embedded tissue sections\*, performed on a Leica Bond. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab16660, 1/250 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. No primary antibody was used in the negative control (shown on the inset).

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

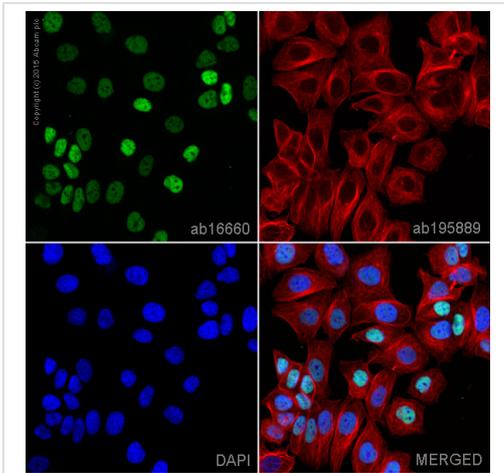
\*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

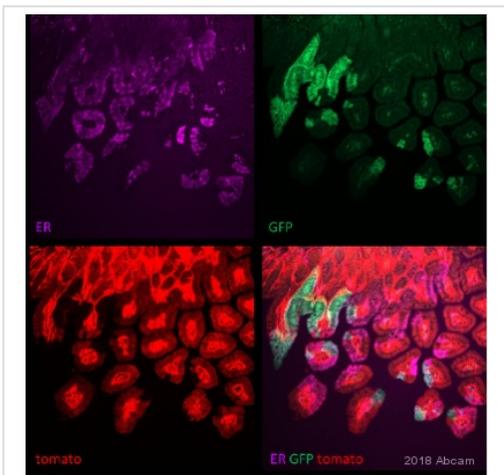
Anti-Estrogen Receptor alpha antibody [SP1] (ab16660) at 1/25 dilution + lysate prepared from MCF7 cells

**Predicted band size: 67 kDa**



Immunocytochemistry/ Immunofluorescence - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

ab16660 staining Estrogen Receptor alpha in MCF7 cells. The cells were fixed with 4% formaldehyde (10min), 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 overnight at +4°C with ab16660 at 1/250 dilution (shown in green) and [ab195889](#), Mouse monoclonal [DM1A] to alpha Tubulin (Alexa Fluor® 594), at 2µg/ml (shown in red). Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



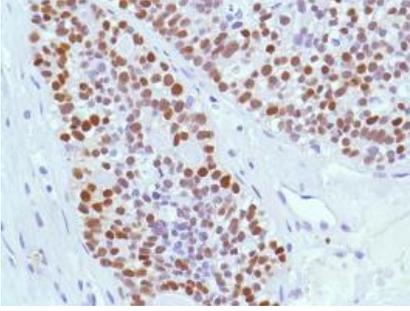
Immunohistochemistry (Frozen sections) - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

This image is courtesy of an Abreview from Dr. Agata Szade.

Immunohistochemical analysis of paraformaldehyde-fixed, 0.1% Triton 0.05% Tween permeabilized frozen Mouse Tissue sections (Intestine) stained for Estrogen Receptor alpha (purple) using ab16660 at 1/100 dilution. Primary was incubated for 16 hours at 4°C with serum as blocking agent for 2 hours at 20°C.

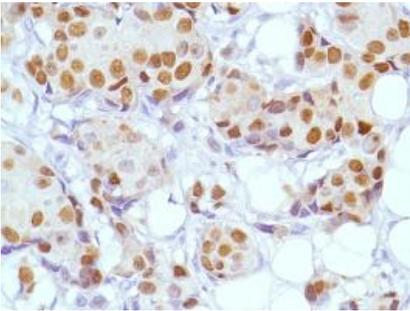
Secondary antibody was AffiniPure F(ab')<sub>2</sub> Fragment Alexa Fluor® 647-conjugated Donkey anti-rabbit IgG at 1/500 dilution.

HPRT-Cre/ERT2 x mT/mG mouse, treated with tamoxifen.



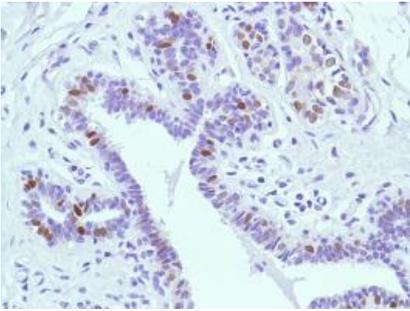
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

Formalin-fixed, paraffin-embedded human ovarian adenocarcinoma tissue stained for Estrogen Receptor alpha using ab16660 at 1/200 dilution in immunohistochemical analysis.



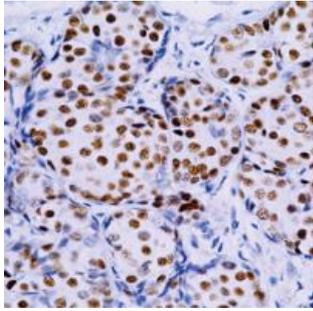
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

Formalin-fixed, paraffin-embedded human breast ductal carcinoma tissue stained for Estrogen Receptor alpha using ab16660 at 1/200 dilution in immunohistochemical analysis.



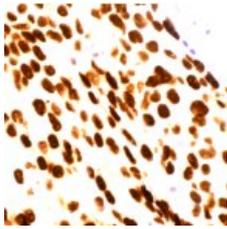
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

Formalin-fixed, paraffin-embedded human breast tissue stained for Estrogen Receptor alpha using ab16660 at 1/200 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

Formalin-fixed, paraffin-embedded human breast carcinoma tissue stained for Estrogen Receptor alpha using ab16660 at 1/200 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor alpha antibody [SP1] (ab16660)

Human breast carcinoma stained with ab16660.

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