abcam

Product datasheet

Anti-Androgen Receptor (phospho S210 + S213) antibody [156C135.2] ab45089

3 Abreviews 7 References 2 Images

Overview

Product name	Anti-Androgen Receptor (phospho S210 + S213) antibody [156C135.2]
Description	Mouse monoclonal [156C135.2] to Androgen Receptor (phospho S210 + S213)
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Human **Predicted to work with:** Rat, Rabbit, Horse, Guinea pig, Hamster, Cat, Dog, Pig, Chimpanzee, Monkey, Baboon, Cynomolgus monkey, Hedgehog, Rhesus monkey
Immunogen	Synthetic peptide corresponding to Human Androgen Receptor aa 200-300 (phospho S213). Database link: **A39248** Run BLAST with Run BLAST with
Positive control	IGF1 stimulated LNCaP cells. IHC-P: human normal prostate FFPE tissue sections
General notes	In IGF-1 stimulated LNCaP cells (passage number 38), a ~110 kDa band was observed. The serine phosphorylation site recognized by ab45089 has been alternatively referred to Ser213 (Lee and Chang, 2003) and Ser210 (Lin et al, 2003). Variations in denotation can arise from how the sequence is counted in various GenBank accession numbers. The site is denoted as Ser213 in GenBank Accession No. A39248, which was used to design the immunogen. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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.
Storage buffer	pH: 7.40

	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Purity	Protein G purified
Primary antibody notes	In IGF-1 stimulated LNCaP cells (passage number 38), a ~110 kDa band was observed. The serine phosphorylation site recognized by ab45089 has been alternatively referred to Ser213 (Lee and Chang, 2003) and Ser210 (Lin et al, 2003). Variations in denotation can arise from how the sequence is counted in various GenBank accession numbers. The site is denoted as Ser213 in GenBank Accession No. A39248, which was used to design the immunogen.
Clonality	Monoclonal
Clone number	156C135.2
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab45089 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		Use a concentration of 1 - 4 µg/ml. Detects a band of approximately 110 kDa (predicted molecular weight: 99 kDa).
IHC-P	★★★★★ (1)	Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function	Steroid hormone receptors are ligand-activated transcription factors that regulate eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Transcription factor activity is modulated by bound coactivator and corepressor proteins. Transcription activation is down-regulated by NR0B2. Activated, but not phosphorylated, by HIPK3 and ZIPK/DAPK3. Isoform 3 and isoform 4 lack the C-terminal ligand-binding domain and may therefore constitutively activate the transcription of a specific set of genes independently of steroid hormones.
Tissue specificity	Isoform 2 is mainly expressed in heart and skeletal muscle (PubMed:15634333). Isoform 3 is expressed by basal and stromal cells of prostate (at protein level) (PubMed:19244107).
Involvement in disease	Androgen insensitivity syndrome Spinal and bulbar muscular atrophy X-linked 1 Defects in AR may play a role in metastatic prostate cancer. The mutated receptor stimulates prostate growth and metastases development despite of androgen ablation. This treatment can reduce primary and metastatic lesions probably by inducing apoptosis of tumor cells when they express the wild-type receptor. Androgen insensitivity, partial
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. In the presence of bound steroid the ligand-binding domain interacts with the N-terminal modulating domain, and thereby activates AR transcription factor activity. Agonist binding is required for dimerization and binding to target DNA. The transcription factor activity of the complex formed by ligand-activated AR and DNA is modulated by interactions with coactivator and corepressor proteins. Interaction with RANBP9 is mediated by both the N-terminal domain and the DNA-binding domain. Interaction with EFCAB6/DJBP is mediated by the DNA-binding domain.

Post-translational modifications

Sumoylated on Lys-388 (major) and Lys-521. Ubiquitinated. Deubiquitinated by USP26. 'Lys-6' and 'Lys-27'-linked polyubiquitination by RNF6 modulates AR transcriptional activity and specificity.
Phosphorylated in prostate cancer cells in response to several growth factors including EGF. Phosphorylation is induced by c-Src kinase (CSK). Tyr-535 is one of the major phosphorylation sites and an increase in phosphorylation and Src kinase activity is associated with prostate cancer progression. Phosphorylation by TNK2 enhances the DNA-binding and transcriptional activity and may be responsible for androgen-independent progression of prostate cancer. Phosphorylation at Ser-83 by CDK9 regulates AR promoter selectivity and cell growth. Phosphorylation by PAK6 leads to AR-mediated transcription inhibition.
Palmitoylated by ZDHHC7 and ZDHHC21. Palmitoylation is required for plasma membrane targeting and for rapid intracellular signaling via ERK and AKT kinases and cAMP generation.

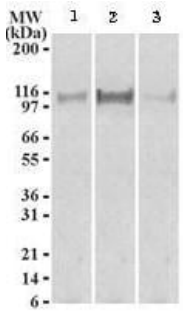
Cellular localization

Nucleus. Cytoplasm. Predominantly cytoplasmic in unligated form but translocates to the nucleus upon ligand-binding. Can also translocate to the nucleus in unligated form in the presence of RACK1.

Form

There are 2 isoforms produced by alternative splicing. Isoform 1 is also known as: AR-B; isoform 2 is known as AR-A or variant AR45.

Images

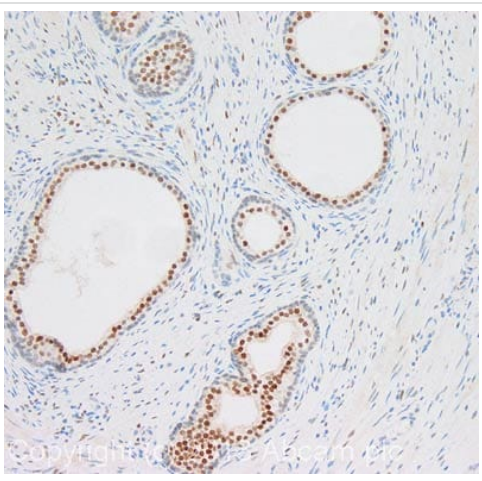


Western blot - Anti-Androgen Receptor (phospho S210 + S213) antibody [156C135.2] (ab45089)

All lanes : Anti-Androgen Receptor (phospho S210 + S213) antibody [156C135.2] (ab45089) at 1 µg/ml

Lane 1 : LNCaP cells with serum starved cells
Lane 2 : LNCaP cells with IGF1 incubated for 4h at 0.1 µg/ml
Lane 3 : LNCaP cells with incubated with 20 ug LY294002 for 30 min then IGF1 incubated for 4h at 0.1 µg/ml

Predicted band size: 99 kDa
Observed band size: 110 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Androgen Receptor (phospho S210 + S213) antibody [156C135.2] (ab45089)

IHC image of Androgen Receptor (phospho S213 + S210) staining in human normal prostate formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. 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 ab45089, 10µg/ml, 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.

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.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors