abcam

ab273500

Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290]

Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] (ab273500) is a rabbit monoclonal antibody detecting Androgen Receptor (AR-V7 specific) in **Western Blot, Flow Cytometry (Intra), ICC/IF**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR15656-290
Purification technique	Affinity purification Protein A
Concentration	0.587 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Target data

See full target information AR

Function Steroid hormone receptors are ligand-activated transcription factors that regulate eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues (PubMed:19022849). Transcription factor activity is modulated by bound coactivator and corepressor proteins like ZBTB7A that recruits NCOR1 and NCOR2 to the androgen response elements/ARE on target genes, negatively regulating androgen receptor signaling and androgen-induced cell proliferation (PubMed:20812024). Transcription activation is also down-regulated by NR0B2. Activated, but not phosphorylated, by HIPK3 and ZIPK/DAPK3. Isoform 3. Lacks the

C-terminal ligand-binding domain and therefore constitutively regulates the transcription of a specific set of canonical AR-target genes, including PSA/KLK3 and TMPRSS2, independently of steroid hormones (PubMed:19244107, PubMed:25008967). However, some genes are differentially regulated by full-length AR (isoform 1) and isoform 3. Isoform 3-specific target genes may be regulated independently of FOXA1 expression (PubMed:25008967). Isoform 4. Lacks the C-terminal ligand-binding domain and may therefore constitutively activate the transcription of a specific set of genes independently of steroid hormones.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] (ab273500) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of Androgen Receptor (AR-V7 specific)?
Anti-Androgen Receptor (AR-V7 specific) [EPR15656-290] (ab273500) specifically detects a band for Androgen Receptor (AR-V7 specific) (UniProt: P10275) at a molecular weight of 99kDa.

Other related products
We have a range of other formats of antibody clone [EPR15656-290] also available for your convenience: ab273500, Carrier free - ab273511, PE - ab318410, APC - ab318513, Alexa Fluor® 488 - ab318616, Alexa Fluor® 647 - ab318719, Alexa Fluor® 594 - ab318822, Alexa Fluor® 555 - ab318922

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The Androgen Receptor (AR-V7 specific) is a variant of the androgen receptor a type of nuclear receptor critical for mediating the effects of androgens like testosterone. AR-V7 is a protein that lacks the ligand-binding domain present in full-length androgen receptors resulting in its activity being independent of androgen presence. It is prominently expressed in prostate tissues and is often observed in prostate cancer cells resistant to conventional therapies. The protein variant exhibits a molecular mass of about 75 kDa. Commonly recognized aliases for AR-V7 include AR-V7 ARv7 and AR V7.
Biological function summary	The AR-V7 is significant in cellular proliferation and survival processes without needing direct androgen binding due to its interaction capability with specific nuclear elements. It resides in the cell nucleus and engages with DNA as part of a transcriptional regulatory complex. Its ability to modulate the transcription of target genes makes it a prominent player in the regulation of cell cycle and apoptosis. In many instances AR-V7 forms complexes with other transcriptional modulators and nuclear proteins that augment its transcriptional activity.
Pathways	AR-V7 plays an important role in the androgen signaling pathway which is pivotal in the progression and development of prostate cancer. It interacts with various co-regulators and influences the expression of genes involved in cell growth and differentiation. The splice variant also participates in other related signaling pathways such as the PI3K/AKT pathway indirectly interfacing with proteins like AR peptides and AR protein which further highlights its relevance in intracellular signaling mechanisms.
Associated diseases and disorders	AR-V7 has a well-established connection with castration-resistant prostate cancer (CRPC) a form of prostate cancer that progresses despite androgen deprivation therapy. The presence of AR-V7 signifies a poor prognosis and resistance to anti-androgen therapies. Its transcriptional activity is linked to proteins such as AR protein and anti-androgen agents that typically target the full-length androgen receptor. Understanding the role of AR-V7 in reinforcing cancer cell survival and therapy resistance has fueled research towards developing targeted therapeutics and diagnostics like AR-V7 ELISA kits and AR IHC assays.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

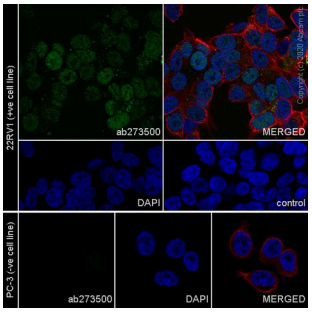
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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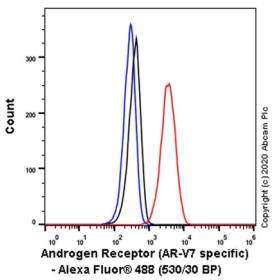
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] (ab273500)

Androgen Receptor (AR-V7 specific) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Androgen Receptor (AR-V7 specific) antibody

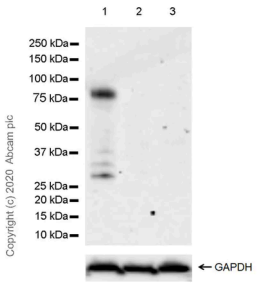
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 22Rv1 cells labelling Androgen Receptor (AR-V7 specific) with ab273500 at 1/50 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing nuclear and weakly cytoplasmic staining in 22RV1 cell line. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] (ab273500)

Androgen Receptor (AR-V7 specific) Flow Cytometry (Intracellular) staining using rabbit Anti-Androgen Receptor (AR-V7 specific) antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized 22Rv1 (human prostate carcinoma epithelial cell) cells labelling Androgen Receptor (AR-V7 specific) with ab273500 at 1/50 dilution (1ug) (Red) (Red) compared with a Rabbit monoclonal IgG (ab172730) (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 dilution was used as the secondary antibody.



Western blot - Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] (ab273500)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
The expression profile observed is consistent with what has been described in the literature (PMID:PMID: 30334814).

Negative control: LNCaP and PC-3 (PMID:27117751, PMID: 30334814).

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] (ab273500) at 1/1000 dilution

Lane 1:
22Rv1 (human prostate carcinoma epithelial cell) whole cell lysate at 40 µg

Lane 2:
LNCaP (human prostate carcinoma epithelial cell) whole cell lysate at 40 µg

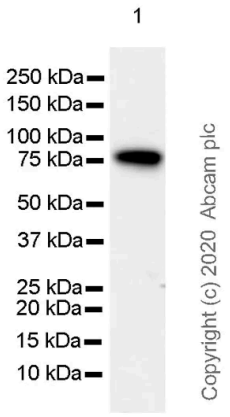
Lane 3:
PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate at 40 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 68 kDa

Observed band size: 80 kDa



Western blot - Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] (ab273500)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Lysate was made freshly and used in WB immediately to minimize protein degradation.

Exposure time: 81 seconds.

All lanes:
Western blot - Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] (ab273500) at 1/1000 dilution

All lanes:
22Rv1 (human prostate carcinoma epithelial cell) whole cell lysate at 40 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/20000 dilution

Predicted band size: 68 kDa

Observed band size: 80 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.