abcam

ab273511

Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR15656-290
Purification technique	Affinity purification Protein A
Concentration	1.02 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab273511 is the carrier-free version of ab273500.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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.

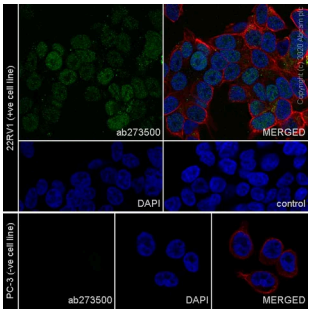
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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:
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2 product images

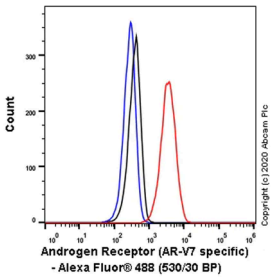


Immunocytochemistry/ Immunofluorescence - Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] - BSA and Azide free (ab273511)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab273500).



Flow Cytometry (Intracellular) - Anti-Androgen Receptor (AR-V7 specific) antibody [EPR15656-290] - BSA and Azide free (ab273511)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab273500).

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