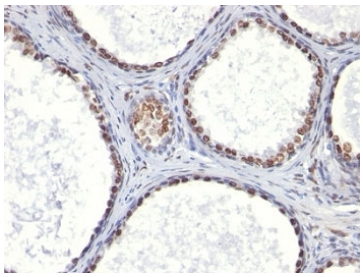
AR Antibody Clone AR441 / Androgen Receptor Antibody [clone AR441] (V2638)

Catalog No.	Formulation	Size
V2638-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2638-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2638SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2638IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

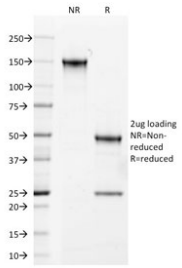
Citations (11)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	AR441
Purity	Protein G affinity chromatography
UniProt	P10275
Localization	Nuclear
Applications	Flow Cytometry : 0.5-1ug/10^6 cells Immunofluorescence : 0.5-1ug/ml Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 min at RT
Limitations	This AR antibody is available for research use only.



AR Antibody Clone AR441 immunohistochemistry of human prostate carcinoma. Formalin-fixed, paraffin-embedded human prostate carcinoma tissue stained with AR Antibody Clone AR441 shows strong nuclear HRP-DAB brown chromogenic staining in tumor epithelial cells, consistent with androgen receptor expression and the expected nuclear localization of this ligand-activated transcription factor. Surrounding stromal elements display minimal staining, highlighting the epithelial predominance of AR-positive cells in prostate carcinoma.



SDS-PAGE analysis of purified, BSA-free AR antibody (clone AR441) as confirmation of integrity and purity.

Description

Androgen receptor (AR), encoded by the AR gene and also known as nuclear receptor subfamily 3 group C member 4 (NR3C4), is a ligand-activated nuclear hormone receptor that mediates cellular responses to androgens such as testosterone and dihydrotestosterone. AR functions as a transcription factor that regulates androgen-responsive genes involved in male reproductive development, prostate physiology, and hormone-regulated cellular growth. AR Antibody Clone AR441 recognizes the androgen receptor protein and has become one of the most widely used monoclonal antibodies for studying AR expression.

Clone AR441 is a mouse monoclonal antibody that has been used extensively in research investigating androgen receptor biology and androgen signaling pathways. Because AR functions as a nuclear transcription factor, detection with AR Antibody Clone AR441 typically reveals nuclear localization in androgen-responsive epithelial cells. This nuclear staining pattern reflects the active transcriptional role of androgen receptor in regulating gene expression in hormone-responsive tissues.

In normal tissues, androgen receptor expression is most prominent in organs dependent on androgen signaling. Strong nuclear AR staining is typically observed in prostate glandular epithelial cells and seminal vesicle epithelium, reflecting the central role of AR in maintaining prostate differentiation and secretory activity. Additional AR expression may be observed in certain epithelial and stromal cell populations in other androgen-responsive tissues where androgen signaling contributes to tissue homeostasis.

In cancer biology, androgen receptor expression has been widely investigated in prostate cancer and other hormone-associated malignancies. AR signaling plays a key role in the growth and progression of many prostate tumors, and detection of AR protein is commonly used to study androgen signaling pathways and tumor cell differentiation. Because androgen receptor remains expressed in many prostate cancers, antibodies such as Clone AR441 are frequently used in studies evaluating AR-positive tumor cell populations.

Clone AR441 has been reported in numerous peer-reviewed publications examining androgen receptor expression and androgen signaling in both normal tissues and tumor models. The widespread use of AR Antibody Clone AR441 in published research has made it a well-recognized reagent for androgen receptor detection across diverse experimental systems.

AR Antibody Clone AR441 is a mouse monoclonal antibody designed to recognize the androgen receptor transcription factor in research applications. By enabling detection of AR protein within cells and tissues, this antibody supports studies focused on androgen signaling mechanisms, prostate biology, and the molecular pathways regulated by androgen

receptor activity.

Application Notes

Optimal dilution of the AR Antibody Clone AR441 should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 10-20 min followed by cooling at RT for 20 min
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Amino acids 302-318 (STEDTAEYSPFKGGYTK) from human Androgen Receptor were used as the immunogen for the AR antibody.

Storage

Store the AR antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Androgen receptor antibody, AR antibody, NR3C4 antibody, Nuclear receptor subfamily 3 group C member 4 antibody