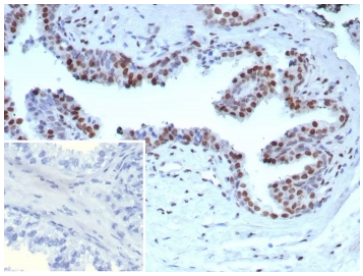
AR-V7 Antibody Recombinant Rabbit MAb / Androgen Receptor Variant 7 Antibody [clone DHTR/9119R] (V5458)

Catalog No.	Formulation	Size
V5458-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5458-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5458SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

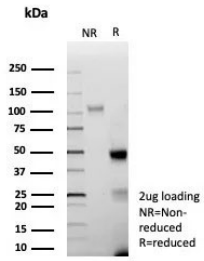
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	DHTR/9119R
Purity	Protein A/G affinity
UniProt	P10275
Localization	Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This AR-V7 antibody is available for research use only.



AR-V7 Antibody Recombinant Rabbit MAb (clone DHTR/9119R) detects androgen receptor variant 7 in immunohistochemistry analysis of formalin-fixed, paraffin-embedded human prostate carcinoma tissue. Distinct nuclear HRP-DAB staining is observed in tumor epithelial cells, consistent with the nuclear localization of the AR-V7 transcription factor, while surrounding stromal cells show minimal signal. The inset panel shows the negative control in which PBS was used in place of the primary antibody, confirming staining specificity. Antigen retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes followed by cooling prior to antibody incubation.



SDS-PAGE analysis of purified, BSA-free recombinant AR-V7 antibody (clone DHTR/9119R) as confirmation of integrity and purity.

Description

Androgen receptor variant 7 (AR-V7) is a truncated splice variant of the androgen receptor encoded by the AR gene, also known as nuclear receptor subfamily 3 group C member 4 (NR3C4). AR-V7 is generated through alternative splicing of AR transcripts in which the C-terminal ligand-binding domain is replaced by a short cryptic exon sequence. AR-V7 Antibody Recombinant Rabbit MAb (clone DHTR/9119R) recognizes this androgen receptor splice variant and enables investigation of variant AR expression in androgen receptor signaling studies.

The full-length androgen receptor contains a large N-terminal transactivation domain, a central DNA-binding domain, a hinge region, and a C-terminal ligand-binding domain that mediates androgen responsiveness. In contrast, AR-V7 retains the N-terminal transcriptional activation domain and DNA-binding domain but lacks the ligand-binding domain. Because the ligand-binding domain is absent, AR-V7 functions as a constitutively active transcription factor that can activate androgen-responsive genes independently of androgen stimulation.

The AR-V7 protein localizes predominantly to the nucleus, reflecting its function as a transcriptional regulator of androgen-responsive gene expression. Retention of the N-terminal transactivation domain enables AR-V7 to recruit transcriptional machinery and regulate target genes that normally respond to androgen signaling pathways. Nuclear localization of AR-V7 therefore corresponds to its functional activity in androgen receptor signaling.

Expression of AR-V7 has been widely examined in prostate cancer research. Alternative splicing of AR transcripts can produce truncated receptor isoforms such as AR-V7 that remain transcriptionally active even when androgen signaling is suppressed. These variants can maintain androgen receptor pathway activity in cellular models of prostate cancer by bypassing the requirement for ligand binding.

Detection of AR-V7 protein is commonly used in studies exploring androgen receptor splice variant biology and androgen-independent signaling mechanisms. Because AR-V7 lacks the ligand-binding domain present in full-length AR, antibodies targeting variant-specific sequences provide a way to distinguish truncated receptor isoforms from the intact androgen receptor protein.

AR-V7 Antibody Recombinant Rabbit MAb (clone DHTR/9119R) is designed to recognize the AR-V7 splice variant in research applications. This antibody supports studies investigating androgen receptor splice variant expression, transcriptional regulation mediated by truncated androgen receptor proteins, and mechanisms of persistent androgen receptor signaling in prostate cancer models.

Application Notes

Optimal dilution of the AR-V7 Antibody Recombinant Rabbit MAb should be determined by the researcher.

Immunogen

A recombinant fragment (within amino acids 1-200) of human Androgen Receptor protein was used as the immunogen for the recombinant AR-V7 antibody.

Storage

Aliquot the AR-V7 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Androgen receptor variant 7 antibody, AR splice variant 7 antibody, AR-V7 splice variant antibody, Androgen receptor truncated variant antibody