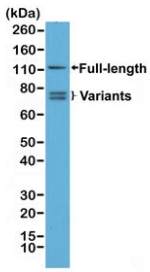
Recombinant Androgen Receptor Antibody [clone RM254] (R20274)

Catalog No.	Formulation	Size
R20274-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

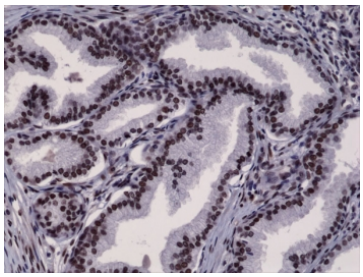
Recombinant RABBIT MONOCLONAL

Bulk quote request

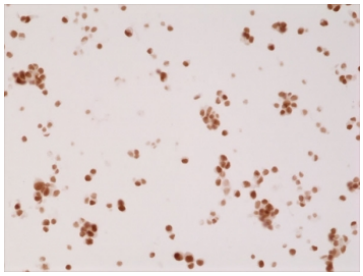
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM254
Purity	Protein A purified from animal origin-free supernatant
UniProt	P10275
Gene ID	367
Localization	Nuclear, cytoplasmic
Applications	Immunohistochemistry/ICC (FFPE) : 1:1000-1:2500 (1) Western Blot : 1:100-1:1000
Limitations	This recombinant Androgen Receptor antibody is available for research use only.



Western blot testing of human 22RV1 cell lysate with recombinant Androgen Receptor antibody. Full length Androgen Receptor and splice variants may be observed.



IHC testing of FFPE human prostate cancer tissue with recombinant Androgen Receptor antibody at 1:2500.



ICC testing of FFPE human 22RV1 cells (prostate carcinoma) with recombinant Androgen Receptor antibody at 1:2500.

Description

The Recombinant Androgen Receptor antibody is a recombinant reagent engineered to detect the androgen receptor (AR) with specificity for the N terminus of the protein. The androgen receptor is a member of the nuclear receptor superfamily and serves as a ligand-activated transcription factor mediating the biological effects of androgens such as testosterone and dihydrotestosterone. Upon ligand binding, AR undergoes conformational changes, translocates to the nucleus, and regulates gene expression programs that control development, reproduction, and homeostasis. The Recombinant Androgen Receptor antibody provides high specificity for the N-terminal domain, ensuring reliable detection of AR across diverse experimental contexts.

The AR protein is encoded by the AR gene located on the X chromosome (Xq11-12). Structurally, AR is organized into distinct domains: an N-terminal transactivation domain, a DNA-binding domain with two zinc finger motifs, a hinge region, and a C-terminal ligand-binding domain. The N terminus contains the activation function-1 (AF-1) domain, which interacts with co-regulators and transcriptional machinery to drive androgen-responsive gene expression. By targeting this region, the Recombinant Androgen Receptor antibody enables accurate detection of AR independent of ligand binding or C-terminal modifications.

In western blotting, the Recombinant Androgen Receptor antibody detects full-length AR and potential splice variants, including constitutively active forms that lack the ligand-binding domain. In immunohistochemistry, it highlights nuclear AR localization in androgen-responsive tissues such as prostate, testis, and muscle, as well as in prostate carcinoma samples. In immunofluorescence, the antibody visualizes dynamic AR redistribution between cytoplasm and nucleus upon hormone stimulation. Recombinant expression guarantees lot-to-lot consistency, addressing variability often associated with traditional hybridoma-derived antibodies.

The Recombinant Androgen Receptor antibody is particularly valuable in oncology, as AR signaling is a driver of prostate cancer initiation and progression. AR-targeted therapies such as androgen deprivation and AR antagonists form the backbone of prostate cancer treatment, but the emergence of AR variants contributes to resistance. Detection of AR using this N-terminal specific antibody provides a reliable tool for studying both full-length receptor and truncated variants. Beyond oncology, the antibody is applied in endocrinology to study androgen function in development, reproductive biology, and metabolic regulation. Synonym terms such as recombinant AR antibody, recombinant N-terminal androgen receptor antibody, and recombinant NR3C4 antibody improve discoverability for diverse users.

By delivering validated and reproducible detection, the Recombinant Androgen Receptor antibody supports robust analysis of androgen signaling in health and disease. NSJ Bioreagents validates this reagent under strict quality standards, providing researchers with confidence in western blotting, immunofluorescence, and immunohistochemistry.

With specificity for the N terminus, the Recombinant Androgen Receptor antibody is an essential tool for exploring receptor biology, cancer progression, and endocrine function.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Androgen Receptor antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE sections.

Immunogen

A peptide corresponding to the N-terminus of Androgen Receptor was used as the immunogen for this recombinant Androgen Receptor antibody.

Storage

Store the recombinant Androgen Receptor antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).