

PRODUCT INFORMATION

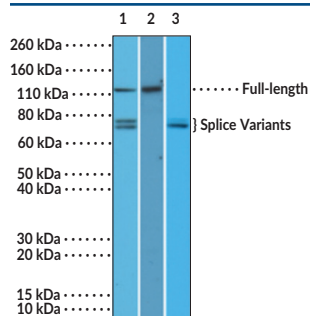
Androgen Receptor (N-Term) Rabbit Monoclonal Antibody (Clone RM254)

Item No. 32206

Overview and Properties

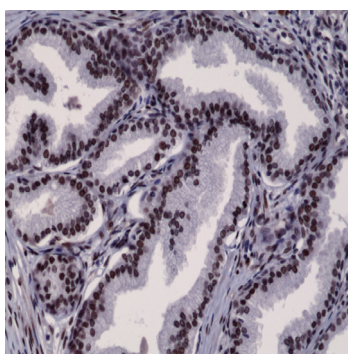
Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	AR, NR3C4, Nuclear Receptor Subfamily 3 Group C Member 4
Immunogen:	Peptide from the N-terminal region of the human androgen receptor
Cross Reactivity:	(+) Full-length androgen receptor and splice variants
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM254
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:1,000-1:2,500 for IHC and 1:100-1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

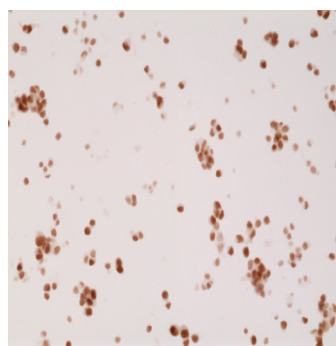


Lane 1: 22RV1 whole cell lysates (N-term)
Lane 2: 22RV1 whole cell lysates (C-term)
Lane 3: 22RV1 whole cell lysates (ARv7-specific)

WB of 22RV1 cell lysates using Androgen Receptor (N-term) Rabbit Monoclonal Antibody (Clone RM254), Androgen Receptor (C-term) Rabbit Monoclonal Antibody (Clone RM255), and Androgen Receptor (ARv7-specific) Antibody (Clone RM7).



Immunohistochemical staining of formalin-fixed and paraffin-embedded human prostate cancer tissue using Androgen Receptor (N-Term) Rabbit Monoclonal Antibody (Clone RM254) at a dilution of 1:2,500.



Immunohistochemical staining of formalin-fixed and paraffin-embedded 22RV1 cells using Androgen Receptor (N-Term) Rabbit Monoclonal Antibody (Clone RM254) at a dilution of 1:2,500.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Androgen receptor is a ligand-activated transcription factor and member of the steroid hormone receptor family.^{1,2} It is composed of an N-terminal regulatory domain (AF-1 site), a DNA-binding domain that contains two zinc fingers, a hinge region containing a nuclear localization signal, and a C-terminal ligand-binding domain (AF-2 site). Unligated androgen receptors are localized to the cytoplasm and bound to heat shock protein 23 (Hsp23), -56, -70, and -90 in a stable conformation that facilitates androgen binding. Androgen binding induces dissociation of the Hsps and nuclear translocation of the androgen receptor where it binds to androgen response elements (AREs) and induces gene transcription. Mutations in AR, the gene encoding the androgen receptor, induce abnormalities in male development ranging from partial androgen insensitivity to complete male-to-female phenotypic sex reversal.² Androgen receptor knockdown induces bone loss, complete loss of sexual behaviors, and reduced aggressive behaviors in male mice, as well as defective folliculogenesis and reduced fertility in female mice. Expression of C-terminally truncated and constitutively active androgen receptor mutants are associated with reduced progression-free survival, lower prostate-specific androgen (PSA) response rates, and shorter median overall survival in patients with castration-resistant prostate cancer.³ Cayman's Androgen Receptor (N-Term) Rabbit Monoclonal Antibody (Clone RM254) can be used for immunohistochemistry (IHC) and Western blot (WB) applications. The antibody recognizes the N-terminus to detect the full-length androgen receptor and its splice variants from human samples.

References

1. Taplin, M.-E. Drug insight: Role of the androgen receptor in the development and progression of prostate cancer. *Nat. Clin. Pract. Oncol.* **4(4)**, 236-244 (2007).
2. Matsumoto, T., Sakari, M., Okada, M., *et al.* The androgen receptor in health and disease. *Annu. Rev. Physiol.* **75**, 201-224 (2013).
3. Anantharaman, A. and Friedlander, T.W. Targeting the androgen receptor in metastatic castrate-resistant prostate cancer: A review. *Urol. Oncol.* **34(8)**, 356-367 (2016).

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