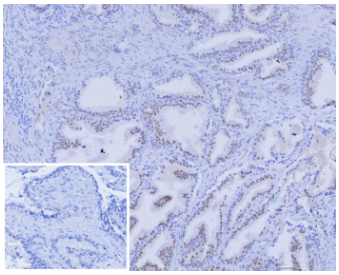
AR Antibody / Androgen receptor [clone r2F12] (V5924)

Catalog No.	Formulation	Size
V5924-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5924-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5924SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

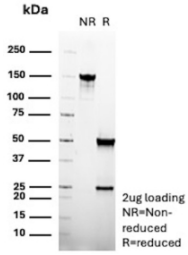
Recombinant MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	r2F12
UniProt	P10275
Localization	Cytoplasm, Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This recombinant AR/Androgen receptor antibody is available for research use only.



Immunohistochemistry analysis of recombinant AR / Androgen receptor antibody (clone r2F12) in human prostate. Formalin-fixed, paraffin-embedded human prostate tissue shows nuclear brown chromogenic staining in glandular epithelial cells, consistent with androgen receptor-positive prostate epithelium and expected nuclear localization of this steroid hormone receptor. The inset shows a PBS-only negative control processed without primary antibody, demonstrating minimal non-specific background staining.



SDS-PAGE Analysis of purified recombinant AR/Androgen receptor antibody (clone r2F12). Confirmation of Purity and Integrity of Antibody.

Description

AR antibody targets Androgen receptor, a ligand-activated nuclear hormone receptor encoded by the AR gene that plays a central role in androgen-dependent transcriptional regulation. Androgen receptor is a member of the steroid hormone receptor family and is primarily localized to the cytoplasm and nucleus, where ligand binding drives receptor activation, nuclear translocation, and DNA binding at androgen response elements. Because of its pivotal role in androgen signaling, AR antibody reagents are widely used in studies of prostate biology and hormone-regulated gene expression.

In prostate tissue, Androgen receptor signaling is essential for normal development, epithelial differentiation, and maintenance of secretory function. AR expression is tightly regulated by androgen availability and cellular context, making antibody-based detection a valuable tool for investigating hormone responsiveness and nuclear receptor dynamics. Upon activation, Androgen receptor functions as a transcription factor that interacts with co-regulatory proteins to modulate expression of genes involved in cell growth, survival, and differentiation.

Dysregulation of Androgen receptor activity is a defining feature of prostate cancer and contributes to disease initiation, progression, and therapeutic resistance. Persistent AR signaling has been observed in advanced and castration-resistant prostate cancer, where alterations in receptor expression, localization, or transcriptional activity sustain androgen-responsive gene programs. Use of an AR antibody enables investigation of nuclear receptor expression patterns and signaling states in prostate disease models and experimental systems.

Beyond prostate cancer, Androgen receptor also influences biology in additional androgen-responsive tissues, including muscle, skin, and reproductive organs, underscoring its broader relevance in endocrine signaling. As a nuclear hormone receptor, AR integrates ligand binding, chromatin interaction, and transcriptional regulation, making it a central model for studies of steroid receptor biology. Clone r2F12 is designed to recognize Androgen receptor and supports research applications focused on prostate biology, nuclear receptor signaling, and hormone-driven transcriptional regulation. NSJ Bioreagents offers this AR antibody for research use.

Application Notes

Optimal dilution of the recombinant AR/Androgen receptor antibody should be determined by the researcher.

Immunogen

Recombinant protein of 321 amino acids representing the N-terminus of the human androgen receptor was used as the immunogen for the recombinant AR/Androgen receptor antibody.

Storage

AR/Androgen receptor antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.