Technical Data Sheet

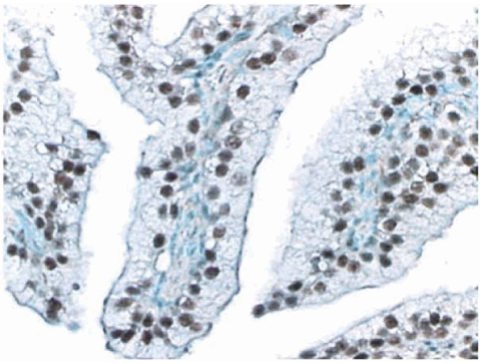
Purified Mouse Anti-Human Androgen Receptor

Product Information

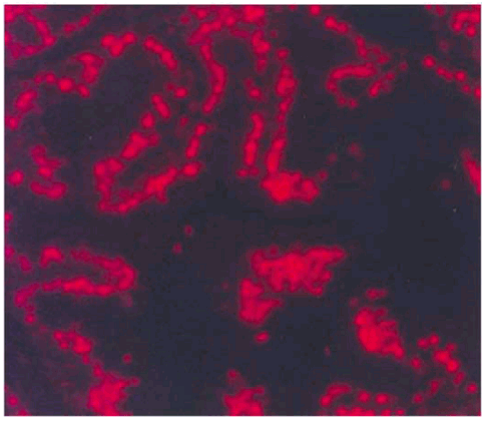
Material Number:	**554224**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	G122-25
Immunogen:	Purified human androgen receptor recombinant protein
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Rat
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The androgen receptor (AR) mediating androgen effects is a member of the steroid and thyroid hormone receptor gene superfamily encoding ligand-dependent nuclear transcription factors. They can be divided into three main domains, an N-terminal domain which modulates transcription efficiency, a central DNA domain which binds to a target gene hormone response element, and a C-terminal hormone binding domain. Androgens are necessary for normal male development and function. They exert their effects on target tissue through binding to the AR, followed by association of the AR complex with specific binding sites on DNA. This AR complex may induce or repress gene transcription. Mutations in the AR gene are associated with androgen insensitivity syndrome, a disorder that causes XY genotypic males to develop as phenotypic females because of their inability to respond to androgens. AR mutations have also been identified in human prostate cancer specimens and the LNCaP human prostate cancer cell line. Monoclonal and polyclonal antibodies to the AR have identified AR-positive cells in a variety of tissues including male and female sexual organs, kidney, liver, adrenal cortex, pituitary gland, skeletal, cardiac, and smooth muscle cells. The androgen receptor migrates at a molecular weight of ~100 kD in SDS-PAGE. G122-25 recognizes an epitope localized within the DNA-binding domain (between amino acids 486 and 651) of the human androgen receptor. Additionally, G122-25 has been shown to recognize androgen receptors in frozen rat prostate tissue sections. G122-25 does not cross-react with estrogen or progesterone receptors. Purified recombinant human androgen receptor protein was used as immunogen.



Formalin-fixed, paraffin-embedded tissue section of human prostate stained for androgen receptor using G122-25, (Cat. No. 554224), and detected with a DAB chromogen and methyl green.



Acetone-fixed, frozen tissue section of rat prostate stained for androgen receptor using G122-25, (Cat. No. 554224), and detected with an AKP system with a fluorescent chromophore.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Immunohistochemistry-formalin (antigen retrieval required)	Routinely Tested
Flow cytometry	Tested During Development
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Tested During Development

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Recommended Assay Procedure:

Applications include flow cytometry (titrate between 0.06 and 1 µg/one million cells), immunohistochemical staining of acetone-fixed, frozen sections, and of formalin-fixed, paraffin-embedded tissue sections (5-10 µg/ml) and immunoprecipitation (1-2 µg/one million cells). Clone G122-434 (Cat. No. 554225) is suggested for western blot analysis. LNCaP prostate carcinoma cells (ATCC CRL 1740) are suggested as positive controls.

Suggested Companion Products

Catalog Number	Name	Size	Clone
550880	DAB Substrate Kit	500 tests	(none)
550337	Biotin Goat Anti-Mouse Ig (Multiple Adsorption)	1.0 ml	Polyclonal
550946	Streptavidin HRP	50 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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Fuller PJ. The steroid receptor superfamily: mechanisms of diversity. *FASEB J.* 1991; 5(15):3092-3099.(Biology)

Newmark JR, Hardy DO, Tonb DC, et al. Androgen receptor gene mutations in human prostate cancer. *Proc Natl Acad Sci U S A.* 1992; 89(14):6319-6323.(Biology)

Shih CC, Young WJ, Wang CH, et al. Monoclonal anti-androgen receptor antibodies: production, characterization and potential diagnostic applications. *Mol Cell Biochem.* 1999; 201(1-2):131-140.(Clone-specific: Flow cytometry)

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