



Androgen Receptor

IHC of Androgen Receptor on an FFPE Prostate Tissue

Description The androgen receptor (AR) is a type of nuclear receptor which is activated by binding of either of the androgenic hormones testosterone or dihydrotestosterone. The main function of the androgen receptor is as a DNA-binding transcription factor which regulates gene expression. However, the androgen receptor has additional functions independent of DNA binding. The AR signaling pathway plays a key role in development and function of male reproductive organs, including the prostate and epididymis. AR also plays a role in nonreproductive organs, such as muscle, hair follicles, and the brain.

This antibody reacts with the androgen receptor and also with the newly-described A form of the receptor. This antibody does not cross-react with estrogen, progesterone or glucocorticoid receptors. Abnormalities in the AR-signaling pathway have been linked to a number of diseases, including Prostate Cancer, Kennedy's Disease and male infertility.

Antibody Type	Mouse Monoclonal	Clone	AR-D12
Isotype	IgG1	Reactivity	Paraffin, Frozen
Localization	Nuclear	Control	Prostatic Adenocarcinoma
Storage	Store at 2°-8°C	Stability	2 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as ImmunoDetector Protein Block/Antibody Diluent (BSB 0040 and BSB 0041) or ImmunoDNA Background Blocker (BSB 0103-BSB 0107).

Presentation Androgen receptor is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

Availability	Catalog No.	Antibody Type	Dilution	Volume/QTY
	BSB 6071	Prediluted	Ready-To-Use	3.0 ml
	BSB 6072	Prediluted	Ready-To-Use	7.0 ml
	BSB 6073	Prediluted	Ready-To-Use	15.0 ml
	BSB 6074	Concentrated	1:250-1:2000	0.1 ml
	BSB 6075	Concentrated	1:250-1:2000	0.5 ml
	BSB 6076	Concentrated	1:250-1:2000	1.0 ml
	BSB 6077	Control Slides		5

Note: For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

- References**
1. Yu Z, et al. *J. Clin. Invest.* 2006;116(10):2663-72
 2. Jänne OA, et al. *Ann Med.* 1993;25:83
 3. Horie K, et al. *Hum Reproduct.* 1992;7(10):1461
 4. Nakada SY, et al. *Canc Res.* 1993;53:1967

Protocol Suggested protocol on reverse

Recommended Immunohistochemical Protocol

- Pretreatment**
1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
 2. Air dry for 2 hours at 58° C.
 3. Deparaffinize, dehydrate and rehydrate tissues.
 4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as **ImmunoDNA Retriever with Citrate** (BSB 0020-BSB 0023) or **EDTA** (BSB 0030-BSB 0033).
 5. Any of three heating methods may be used:
 - a. **Electric Pressure Cooker**
Place standoff rack at base of pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high, and incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. **Water Bath Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a water bath set at 95°-99° C. Incubate for 30-60 minutes.
 - c. **Conventional Steamer Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a Steamer, cover and steam for 30-60 minutes.
 6. After heat treatment, transfer slides in **ImmunoDNA Retriever with Citrate** or **EDTA** to room temperature and let stand for 15-20 minutes.
 7. Wash slides with IHC wash buffer or DI water.
 8. Continue IHC staining protocol.

Immunohistochemical Protocol

Step	ImmunoDetector (AP or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

