SANTA CRUZ BIOTECHNOLOGY, INC.

AR (N-20): sc-816

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Androgens exhibit a wide range of effects on the development, maintenance and regulation of male phenotype and make reproductive physiology. The androgen receptor (AR) is a member of the steroid superfamily of ligand-dependent transcription factors. ARs bind the two biologically active androgens, testosterone (T) and dihydrotestosterone (DHT), with high and nearly identical affinities; however, the rates of association and dissociation of T are about three times more rapid than those of DHT. This difference has resulted in speculation as to whether these differences in binding kinetics could account for the different physiological effects of T and DHT. A striking feature of AR is its rapid degradation in the absence of ligand. It is now well established that androgen binding results in an at least six-fold increase in androgen stability and that ligand-induced stabilization of AR is highly androgen-specific.

CHROMOSOMAL LOCATION

Genetic locus: AR (human) mapping to Xq12; Ar (mouse) mapping to X C3.

SOURCE

AR (N-20) is available as either purified rabbit (sc-816) or goat (sc-816-G) polyclonal affinity antibody raised against a peptide mapping at the N-terminus of AR of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-816 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-816 X, 100 µg/0.1 ml.

APPLICATIONS

AR (N-20) is recommended for detection of AR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AR (N-20) is also recommended for detection of AR in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AR siRNA (h): sc-29204, AR siRNA (m): sc-29203, AR shRNA Plasmid (h): sc-29204-SH, AR shRNA Plasmid (m): sc-29203-SH, AR shRNA (h) Lentiviral Particles: sc-29204-V and AR shRNA (m) Lentiviral Particles: sc-29203-V.

AR (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

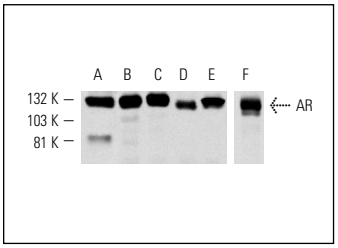
Molecular Weight of AR: 110 kDa.

Positive Controls: T-47D cell lysate: sc-2293 or ZR-75-1 cell lysate: sc-2241.

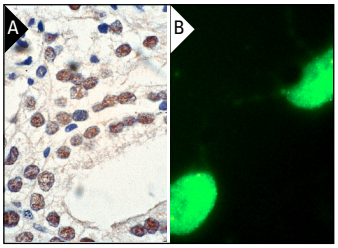
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Western blot analysis of AR expression in AT-3 (**A**), T-47D (**B**), ZR-75-1 (**C,F**) and MCF7 (**D**) whole cell lysates and SK-BR-3 nuclear extract (**E**). Antibodies tested include AR (N-20): sc-816 (**A-E**) and AR (441): sc-7305 (**F**).



AR (N-20): sc-816. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human prostate carcinoma tissue showing nuclear staining of glandular epithelia (**A**). Immunofluorescence staining of methanol-fixed LNCaP cells showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

1. Chen, C.D., et al. 2002. NFκB activates prostate-specific antigen expression and is upregulated in androgen-independent prostate cancer. Mol. Cell. Biol. 22: 2862-2870.
2. Reiner, T., et al. 2013. Betulinic acid selectively increases protein degradation and enhances prostate cancer-specific apoptosis: possible role for inhibition of deubiquitinase activity. PLoS ONE 8: e56234.
3. Comeglio, P., et al. 2014. Opposite effects of tamoxifen on metabolic syndrome-induced bladder and prostate alterations: a role for GPR30/GPER? Prostate 74: 10-28.
4. Li, L., et al. 2014. Targeting poly(ADP-ribose) polymerase and the c-Myb-regulated DNA damage response pathway in castration-resistant prostate cancer. Sci. Signal. 7: ra47.
5. Kuan-Chou,, et al. 2015. Benign prostatic hyperplasia complicated with T1DM can be alleviated by treadmill exercise—evidences revealed by the rat model. BMC Urol. 15: 113.
6. Sun, F., et al. 2015. A novel prostate cancer therapeutic strategy using icaritin-activated arylhydrocarbon-receptor to co-target androgen receptor and its splice variants. Carcinogenesis 36: 757-768.
7. Nakata, W., et al. 2015. Bone marrow-derived cells contribute to regeneration of injured prostate epithelium and stroma. Prostate 75: 806-814.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS Satisfaction Guaranteed

Try **AR (441): sc-7305** or **AR (F39.4.1): sc-52309**, our highly recommended monoclonal aternatives to AR (N-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **AR (441): sc-7305**.