SANTA CRUZ BIOTECHNOLOGY, INC.

AR (H-280): sc-13062

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 (H-280) is a rabbit polyclonal antibody raised against amino acids 91-370 mapping near the N-terminus of AR of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13062 X, 200 µg/0.1 ml.

APPLICATIONS

AR (H-280) 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).

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 (H-280) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of AR: 110 kDa.

Positive Controls: AR (m2): 293 Lysate: sc-178296, ZR-75-1 cell lysate: sc-2241 or C32 whole cell lysate: sc-2205.

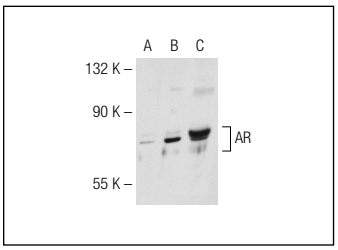
STORAGE

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

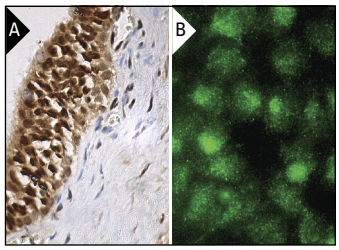
RESEARCH USE

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

DATA



AR (H-280): sc-13062. Western blot analysis of AR expression in non-transfected 293: sc-110760 (**A**), mouse AR transfected 293: sc-178296 (**B**) and C32 (**C**) whole cell lysates.



AR (H-280): sc-13062. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of cells in seminiferous ducts (**A**). Immunofluorescence staining of methanol fixed HeLa cells showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

1. Burgdorf, S., et al. 2004. TSG101 interacts with apoptosis-antagonizing transcription factor and enhances androgen receptor-mediated transcription by promoting its monoubiquitination. J. Biol. Chem. 279: 17524-17534.
2. Takayama, K., et al. 2009. Amyloid precursor protein is a primary androgen target gene that promotes prostate cancer growth. Cancer Res. 69: 137-142.
3. Guo, Z., et al. 2009. A novel androgen receptor splice variant is up-regulated during prostate cancer progression and promotes androgen depletion-resistant growth. Cancer Res. 69: 2305-2313.
4. Thomas, M.A., et al. 2010. Androgen regulation of the prostatic tumour suppressor NKX3.1 is mediated by its 3' untranslated region. Biochem. J. 425: 575-583.
5. Hu, S., et al. 2010. Research resource: genome-wide mapping of *in vivo* androgen receptor binding sites in mouse epididymis. Mol. Endocrinol. 24: 2392-2405.
6. Askew, E.B., et al. 2010. Transcriptional synergy between melanoma antigen gene protein-A11 (MAGE-11) and p300 in androgen receptor signaling. J. Biol. Chem. 285: 21824-21836.
7. Allioli, N., et al. 2011. TM4SF1, a novel primary androgen receptor target gene over-expressed in human prostate cancer and involved in cell migration. Prostate 71: 1239-1250.
8. Hsu, F.N., et al. 2011. The significance of Her2 on androgen receptor protein stability in the transition of androgen requirement in prostate cancer cells. Am. J. Physiol. Endocrinol. Metab. 300: E902-E908.