

p-AR (156C135.2): sc-52894

BACKGROUND

Androgens exhibit a wide range of effects on the development, maintenance and regulation of male phenotype and reproductive physiology in males. The androgen receptor (AR) is a member of the steroid superfamily of ligand-dependent transcription factors. ARs bind active testosterone (T) and dihydrotestosterone (DHT). The rates of association and dissociation of T are about three times more rapid than those of DHT. This difference in binding kinetics may account for the different physiological effects of T and DHT. Androgen binding results in an at least six-fold increase in androgen receptor stability. Akt phosphorylates human AR at serines 210 and 790. The synthetic androgen R1881 elevates phosphorylation of serines 308 and 650 *in vitro*.

REFERENCES

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- Zhou, Z.X., et al. 1994. The androgen receptor: an overview. *Recent Prog. Horm. Res.* 49: 249-274.
- Zhou, Z.X., et al. 1995. Specificity of ligand-dependent androgen receptor stabilization: receptor domain interactions influence ligand dissociation and receptor stability. *Mol. Endocrinol.* 9: 208-218.
- Lin, H.K., et al. 2001. Akt suppresses androgen-induced apoptosis by phosphorylating and inhibiting androgen receptor. *Proc. Natl. Acad. Sci. USA* 98: 7200-7205.

CHROMOSOMAL LOCATION

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

SOURCE

p-AR (156C135.2) is a mouse monoclonal antibody raised against a short amino acid sequence containing phosphorylated raised against a synthetic peptide corresponding to amino acids 207-221 of human origin, containing the serine 213 phosphorylation site of AR of human origin.

PRODUCT

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

APPLICATIONS

p-AR (156C135.2) is recommended for detection of Ser 213 and Ser 210 phosphorylated AR of mouse, rat, human, porcine and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

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.

Molecular Weight of p-AR: 110/87 kDa.

SELECT PRODUCT CITATIONS

- Paliouras, M. and Diamandis, E.P. 2008. An AKT activity threshold regulates androgen-dependent and androgen-independent PSA expression in prostate cancer cell lines. *Biol. Chem.* 389: 773-780.
- Zhu, S.Y., et al. 2011. Stanozolol regulates proliferation of growth plate chondrocytes via activation of ER α in GnRH α -treated adolescent rats. *J. Pediatr. Endocrinol. Metab.* 24: 275-281.
- Ghotbaddini, M. and Powell, J.B. 2015. The AhR ligand, TCDD, regulates androgen receptor activity differently in androgen-sensitive versus castration-resistant human prostate cancer cells. *Int. J. Environ. Res. Public Health* 12: 7506-7518.
- Sun, H., et al. 2018. An inflammatory-CCrk circuitry drives mTORC1-dependent metabolic and immunosuppressive reprogramming in obesity-associated hepatocellular carcinoma. *Nat. Commun.* 9: 5214.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.