

p-AR (Ser 308)-R: sc-26406-R

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 dihydro-testosterone (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 at least a six-fold increase in androgen receptor stability. Akt phosphorylates human AR at serine residues 210 and 790. The synthetic androgen R1881 elevates phosphorylation of Serine residues 308 and 650 *in vitro*.

REFERENCES

- Walsh, P.C., Madden, J.D., Harrod, M.J., Goldstein, J.L., MacDonald, P.C. and Wilson, J.D. 1974. Familial incomplete male pseudohermaphroditism type 2: decreased dihydro-testosterone formation in pseudovaginal perineoscrotal hypospadias. *N. Engl. J. Med.* 291: 944-949.
- Imperato-McGinley, J., Guerrero, L., Gautier, T. and Peterson, R.E. 1974. Steroid 5 α -reductase deficiency in man: an inherited form of male pseudohermaphroditism. *Science* 186: 1213-1215.
- Wilson, E.M. and French, F.S. 1976. Binding properties of androgen receptors: evidence for identical receptors in rat testis, epididymis and prostate. *J. Biol. Chem.* 251: 5620-5629.
- Grino, P.B., Griffin, J.E. and Wilson, J.D. 1990. Testosterone at high concentrations interacts with the human androgen receptor similarly to dihydro-testosterone. *Endocrinol.* 126: 1165-1172.
- Kemppainen, J.A., Lane, M.V., Sar, M. and Wilson, E.M. 1992. Androgen receptor phosphorylation, turnover, nuclear transport and transcriptional activation: specificity for steroids and antihormones. *J. Biol. Chem.* 267: 968-974.
- Zhou, Z.X., Wong, C.I., Sar, M. and Wilson, E.M. 1994. The androgen receptor: an overview. *Recent Prog. Horm. Res.* 49: 249-274.
- Zhou, Z.X., Lane, M.V., Kemppainen, J.A., French, F.S. and Wilson, E.M. 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., Yeh, S., Kang, H.Y. and Chang, C. 2001. Akt suppresses androgen-induced apoptosis by phosphorylating and inhibiting androgen receptor. *Proc. Natl. Acad. Sci. USA* 98: 7200-7205.
- Gioeli, D., Ficarro, S., Kwiek, J., Aaronson, D., Hancock, M., Catling, A., White, F., Christian, R., Settlege, R., Shabanowitz, J., Hunt, D. and Weber, M. 2002. Androgen receptor phosphorylation. Regulation and identification of the phosphorylation sites. *J. Biol. Chem.* 277: 29304-29314.

STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: AR (human) mapping to Xq12.

SOURCE

p-AR (Ser 308)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 308 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.

Blocking peptide available for competition studies, sc-26406-R P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-AR (Ser 308)-R is recommended for detection of Ser 308 phosphorylated AR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-AR (Ser 308)-R is also recommended for detection of correspondingly phosphorylated AR in additional species, including equine, canine, bovine and porcine.

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

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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **p-AR (E-6): sc-377546**, our highly recommended monoclonal alternative to p-AR (Ser 308).