

p-AR (E-6): sc-377546

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 an at least 6-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., et al. 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., et al. 1974. Steroid 5 α -reductase deficiency in man: an inherited form of male pseudohermaphroditism. *Science* 186: 1213-1215.

CHROMOSOMAL LOCATION

Genetic locus: AR (human) mapping to Xq12.

SOURCE

p-AR (E-6) is a mouse monoclonal antibody raised against a short amino acid sequence containing Ser 308 phosphorylated AR of human origin.

PRODUCT

Each vial contains 200 μ g IgG γ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-AR (E-6) is available conjugated to agarose (sc-377546 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377546 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377546 PE), fluorescein (sc-377546 FITC), Alexa Fluor® 488 (sc-377546 AF488), Alexa Fluor® 546 (sc-377546 AF546), Alexa Fluor® 594 (sc-377546 AF594) or Alexa Fluor® 647 (sc-377546 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377546 AF680) or Alexa Fluor® 790 (sc-377546 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377546 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

p-AR (E-6) is recommended for detection of Ser 308 phosphorylated AR of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

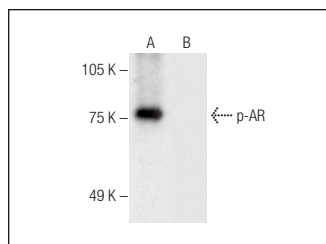
p-AR (E-6) is also recommended for detection of correspondingly phosphorylated AR in additional species, including equine, canine, bovine and porcine.

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 isoforms: 110/87 kDa.

Positive Controls: MOLT-4 nuclear extract: sc-2151.

DATA



Western blot analysis of AR phosphorylation in untreated (A) and lambda protein phosphatase (sc-200312A) treated (B) MOLT-4 nuclear extracts. Antibody tested include p-AR (E-6): sc-377546.

SELECT PRODUCT CITATIONS

- Giannattasio, S., et al. 2019. Testosterone-mediated activation of androgenic signalling sustains *in vitro* the transformed and radioresistant phenotype of rhabdomyosarcoma cell lines. *J. Endocrinol. Invest.* 42: 183-197.
- Inder, S., et al. 2019. Multiplex profiling identifies clinically relevant signalling proteins in an isogenic prostate cancer model of radioresistance. *Sci. Rep.* 9: 17325.
- Samarkina, A., et al. 2023. Androgen receptor is a determinant of melanoma targeted drug resistance. *Nat. Commun.* 14: 6498.

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.