SANTA CRUZ BIOTECHNOLOGY, INC.

ARA160 siRNA (h): sc-37683

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 the two biologically active androgens, testosterone (T) and dihydrotestosterone (DHT). ARA54 contains a RING finger and functions as an AR coactivator. Testis, thymus, spleen, colon, pro-state and uterus express ARA54 at high levels. ARA160 associates with an ATP-dependent chromatin remodeling factor known as the SNF/SWI complex. The FXXLF motif present in AR coactivators mediates their interaction with AR but not their transcription-related activity.

REFERENCES

1. Walsh, P.C., et al. 1974. Familial incomplete male pseudohermaphroditism type 2: decreased dihydrotestosterone formation in pseudovaginal perineoscrotal hypospadias. N. Engl. J. Med. 291: 944-949.
2. Imperato-McGinley, J., et al. 1974. Steroid 5α-reductase deficiency in man: an inherited form of male pseudohermaphroditism. Science 186: 1213-1215.
3. Garcia, J.A., et al. 1992. Cloning and chromosomal mapping of a human immunodeficiency virus 1 "TATA" element modulatory factor. Proc. Natl. Acad. Sci. USA 89: 9372-9376.
4. Zhou, Z.X., et al. 1994. The androgen receptor: an overview. Recent Prog. Horm. Res. 49: 249-274.
5. Kang, H.Y., et al. 1999. Cloning and characterization of human prostate coactivator ARA54, a novel protein that associates with the androgen receptor. J. Biol. Chem. 274: 8570-8576.
6. Ueki, N., et al. 1999. Isolation and characterization of a novel human gene (HFB30) which en-codes a protein with a RING finger motif. Biochim. Biophys. Acta 1445: 232-236.
7. He, B., et al. 2002. The FXXLF motif mediates androgen receptor-specific interactions with coregulators. J. Biol. Chem. 277: 10226-10235.
8. Mori, K. and Kato, H. 2002. A putative nuclear receptor coactivator (TMF/ARA160) associates with hbrm/hSNF2 α and BRG-1/hSNF2 β and localizes in the Golgi apparatus. FEBS Lett. 520:127-132.

CHROMOSOMAL LOCATION

Genetic locus: TMF1 (human) mapping to 3p14.1.

PRODUCT

ARA160 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ARA160 shRNA Plasmid (h): sc-37683-SH and ARA160 shRNA (h) Lentiviral Particles: sc-37683-V as alternate gene silencing products.

For independent verification of ARA160 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-37683A, sc-37683B and sc-37683C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

ARA160 siRNA (h) is recommended for the inhibition of ARA160 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

GENE EXPRESSION MONITORING

ARA160 (C-10): sc-398411 is recommended as a control antibody for monitoring of ARA160 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ARA160 gene expression knockdown using RT-PCR Primer: ARA160 (h)-PR: sc-37683-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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.