SANTA CRUZ BIOTECHNOLOGY, INC.

TReP-132 (E-14): sc-169676

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TReP-132 (transcriptional-regulating factor 1, breast cancer anti-estrogen resistance 2) is a 1,200 amino acid nuclear protein that contains 3 C_2H_2-type zinc fingers, one ELM2 domain, and one SANT domain. TReP-132 is believed to activate transcription of CYP11A1. TReP-132 interaction with CREBBP and EP300 results in a synergistic transcriptional activation of CYP11A1. TReP-132 was initially identified as a regulator of steroidogenesis but is also believed to be a cell growth suppressor. TReP-132 acts by inducing the gene expression of the G_1 cyclin-dependent kinase inhibitors $p21^{WAF1/Cip1}$ (p21) and $p27^{Kip1}$ (p27). This interaction is believed to be achieved with progesterone-bound PR (progesterone receptor) to trans activate the p21 and p27 gene promoters at proximal Sp1-binding sites. Highest expression of TReP-132 is believed to be in thymus, testis and adrenal cortex, but may also be expressed in the adrenal medulla, thyroid, and stomach. TReP-132 is highly expressed in steroidogenic JEG-3 and MCF-7 cells with low expression in non-steroidogenic HepG2 and HK293 cells.

REFERENCES

1. Gizard, F., et al. 2001. A novel zinc finger protein TReP-132 interacts with CBP/p300 to regulate human CYP11A1 gene expression. J. Biol. Chem. 276: 33881-33892.
2. Gizard, F., et al. 2002. Function of the transcriptional regulating protein of 132 kDa (TReP-132) on human P450scc gene expression. Endocr. Res. 28: 559-574.
3. Gizard, F., et al. 2002. The transcriptional regulating protein of 132 kDa (TReP-132) enhances P450scc gene transcription through interaction with steroidogenic factor-1 in human adrenal cells. J. Biol. Chem. 277: 39144-39155.
4. Duguay, Y., et al. 2003. Cloning of murine TReP-132, a novel transcription factor expressed in brain regions involved in behavioral and psychiatric disorders. Mol. Psychiatry 8: 39-49.
5. Gizard, F., et al. 2004. The transcriptional regulating protein of 132 kDa (TReP-132) differentially influences steroidogenic pathways in human adrenal NCI-H295 cells. J. Mol. Endocrinol. 32: 557-569.
6. Gizard, F., et al. 2005. TReP-132 controls cell proliferation by regulating the expression of the cyclin-dependent kinase inhibitors $p21^{WAF1/Cip1}$ and $p27^{Kip1}$. Mol. Cell. Biol. 25: 4335-4348.
7. Gizard, F., et al. 2006. TReP-132 is a novel progesterone receptor coactivator required for the inhibition of breast cancer cell growth and enhancement of differentiation by progesterone. Mol. Cell. Biol. 26: 7632-7644.

CHROMOSOMAL LOCATION

Genetic locus: TRERF1 (human) mapping to 6p21.1; Trerf1 (mouse) mapping to 17 C.

SOURCE

TReP-132 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TReP-132 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-169676 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TReP-132 (E-14) is recommended for detection of TReP-132 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TReP-132 (E-14) is also recommended for detection of TReP-132 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for TReP-132 siRNA (h): sc-95359, TReP-132 siRNA (m): sc-154633, TReP-132 shRNA Plasmid (h): sc-95359-SH, TReP-132 shRNA Plasmid (m): sc-154633-SH, TReP-132 shRNA (h) Lentiviral Particles: sc-95359-V and TReP-132 shRNA (m) Lentiviral Particles: sc-154633-V.

Molecular Weight of TReP-132: 132 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.