SANTA CRUZ BIOTECHNOLOGY, INC.

Rex-1 (H-77): sc-98999

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The Power to Question

BACKGROUND

Rex-1 (for reduced expression), also designated zinc finger protein 42 (ZFP42), is an acidic zinc finger protein. Rex-1 contains four repeats of the zinc finger nucleic acid-binding motif and a potential acidic activator domain, suggesting that it is a regulatory protein. Rex-1 localizes to the nucleus and is highly expressed in embryonic stem (ES) and undifferentiated murine F9 teratocarcinoma cells. At the transcriptional level, expression of Rex-1 is reduced when F9 cells are induced to differentiate by the addition of retinoic acid (RA), and Rex-1 repression is enhanced by E1A. The Oct-3/4 transcription factor can either activate or repress the Rex-1 promoter, depending on the cellular environment, while Oct-6 can lower the expression of Rex-1.

REFERENCES

1. Hosler, B.A., et al. 1990. Expression of Rex-1, a gene containing zinc finger motifs, is rapidly reduced by retinoic acid in F9 teratocarcinoma cells. Mol. Cell. Biol. 9: 5623-5629.
2. Hosler, B.A., et al. 1993. An octamer motif contributes to the expression of the retinoic acid-regulated zinc finger gene Rex-1 (ZFP42) in F9 teratocarcinoma cells. Mol. Cell. Biol. 13: 2919-2928.
3. Ben-Shushan, E., et al. 1998. Rex-1, a gene encoding a transcription factor expressed in the early embryo, is regulated via Oct-3/4 and Oct-6 binding to an octamer site and a novel protein, Rox-1, binding to an adjacent site. Mol. Cell. Biol. 18: 1866-1878.
4. Henderson, J.K., et al. 2002. Preimplantation human embryos and embryonic stem cells show comparable expression of stage-specific embryonic antigens. Stem Cells 20: 329-337.
5. Zhang, H., et al. 2005. Effect of nicotine on Oct-4 and Rex-1 expression of mouse embryonic stem cells. Reprod. Toxicol. 19: 473-478.
6. Fang, Z.F., et al. 2005. Human embryonic stem cell lines derived from the Chinese population. Cell Res. 15: 394-400.

CHROMOSOMAL LOCATION

Genetic locus: ZFP42 (human) mapping to 4q35.2.

SOURCE

Rex-1 (H-77) is a rabbit polyclonal antibody raised against amino acids 1-77 mapping at the N-terminus of Rex-1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98999 X, 200 µg/0.1 ml.

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.

APPLICATIONS

Rex-1 (H-77) is recommended for detection of Rex-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for Rex-1 siRNA (h): sc-61460, Rex-1 shRNA Plasmid (h): sc-61460-SH and Rex-1 shRNA (h) Lentiviral Particles: sc-61460-V.

Rex-1 (H-77) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

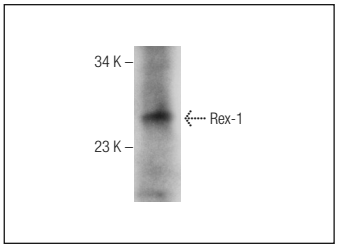
Molecular Weight of Rex-1: 27 kDa.

Positive Controls: Human kidney extract: sc-363764, Caki-1 cell lysate: sc-2224 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

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 A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Rex-1 (H-77): sc-98999. Western blot analysis of Rex-1 expression in human kidney tissue extract.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **Rex-1 (E-11): sc-377095**, our highly recommended monoclonal alternative to Rex-1 (H-77).