

Rex-1 (F-1): sc-514643

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

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- 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.
- 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.
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- Fang, Z.F., et al. 2005. Human embryonic stem cell lines derived from the Chinese population. *Cell Res.* 15: 394-400.
- Furue, M., et al. 2005. Leukemia inhibitory factor as an anti-apoptotic mitogen for pluripotent mouse embryonic stem cells in a serum-free medium without feeder cells. *In vitro cellular & developmental biology. Animal* 41: 19-28.

CHROMOSOMAL LOCATION

Genetic locus: Zfp42 (mouse) mapping to 8 A4.

SOURCE

Rex-1 (F-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 34-58 near the N-terminus of Rex-1 of mouse origin.

STORAGE

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

PROTOCOLS

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

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514643 X, 200 µg/0.1 ml.

APPLICATIONS

Rex-1 (F-1) is recommended for detection of Rex-1 of mouse origin by Western Blotting (starting dilution 1:100, 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 (m): sc-61461, Rex-1 shRNA Plasmid (m): sc-61461-SH and Rex-1 shRNA (m) Lentiviral Particles: sc-61461-V.

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

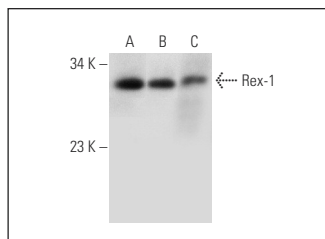
Molecular Weight of Rex-1: 27 kDa.

Positive Controls: F9 cell lysate: sc-2245, NIH/3T3 whole cell lysate: sc-2210 or mouse lung extract: sc-2390.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Rex-1 (F-1): sc-514643. Western blot analysis of Rex-1 expression in F9 (A) and NIH/3T3 (B) whole cell lysates and mouse lung tissue extract (C).

RESEARCH USE

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