

# REXO4 (S-13): sc-107085

## BACKGROUND

Proper DNA and RNA metabolism require nucleases which function in DNA replication, recombination and repair, as well as in RNA processing and degradation events. REXO4 (REX4, RNA exonuclease 4 homolog), also known as REX4, XPMC2 or XPMC2H, is a 422 amino acid nucleolar protein containing an exonuclease domain. REXO4 interacts with ER $\alpha$  and ER $\beta$ , however, this interaction is reversed by estrogen and augmented by tamoxifen treatment. Expressed as two alternatively spliced isoforms, REXO4 is encoded by a gene located on human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

## REFERENCES

1. Kwiatkowska, J., et al. 1997. Human XPMC2H: cDNA cloning, mapping to 9q34, genomic structure, and evaluation as TSC1. *Genomics* 44: 350-354.
2. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602930. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Wang, C., et al. 2000. The application of high density microarray for analysis of mitogenic signaling and cell-cycle in the adrenal. *Endocr. Res.* 26: 807-823.
4. Boube, M., et al. 2002. Evidence for a mediator of RNA polymerase II transcriptional regulation conserved from yeast to man. *Cell* 110: 143-151.
5. Krieg, A.J., et al. 2006. Functional analysis of p53 binding under differential stresses. *Mol. Cell. Biol.* 26: 7030-7045.

## CHROMOSOMAL LOCATION

Genetic locus: REXO4 (human) mapping to 9q34.2; REXO4 (mouse) mapping to 2 A3.

## SOURCE

REXO4 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of REXO4 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107085 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

REXO4 (S-13) is recommended for detection of REXO4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

REXO4 (S-13) is also recommended for detection of REXO4 in additional species, including canine, porcine and avian.

Suitable for use as control antibody for REXO4 siRNA (h): sc-92768, REXO4 siRNA (m): sc-152821, REXO4 shRNA Plasmid (h): sc-92768-SH, REXO4 shRNA Plasmid (m): sc-152821-SH, REXO4 shRNA (h) Lentiviral Particles: sc-92768-V and REXO4 shRNA (m) Lentiviral Particles: sc-152821-V.

Molecular Weight (predicted) of REXO4: 47 kDa.

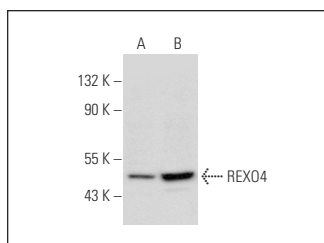
Molecular Weight (observed) of REXO4: 71 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



REXO4 (S-13): sc-107085. Western blot analysis of REXO4 expression in HeLa (A) and A549 (B) whole cell lysates.

## RESEARCH USE

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