

RCOR3 (B-20): sc-102079



The Power to Question

BACKGROUND

In mammals, the CoREST (corepressor for element-1-silencing transcription factor) complex is a chromatin-modifying structure that, through interactions with NRSF (neuron restrictive silencer factor), regulates neuronal gene expression and neuronal cell fate. RCOR2 (REST corepressor 2) and RCOR3 (REST corepressor 3) are nuclear proteins that each contain one ELM2 domain and two SANT domains. RCOR2 and RCOR3, both members of the CoREST family, are thought to function as components of the CoREST complex; possibly playing a role in the transcriptional repression of neuronal genes. Additionally, RCOR2 and RCOR3, in conjunction with CoREST, can form immunocomplexes with a variety of histone-modifying genes, including G9a and HDAC1. Via these protein complexes, RCOR2 and RCOR3 can further regulate transcription by controlling the methylation and demethylation of target genes during early development. While RCOR2 is expressed as only one known isoform, RCOR3 exists as two isoforms due to alternative splicing events.

REFERENCES

- Andrés, M.E., et al. 1999. CoREST: a functional corepressor required for regulation of neural-specific gene expression. *Proc. Natl. Acad. Sci. USA* 96: 9873-9878.
- Dallman, J.E., et al. 2004. A conserved role but different partners for the transcriptional corepressor CoREST in fly and mammalian nervous system formation. *J. Neurosci.* 24: 7186-7193.
- Ballas, N., et al. 2005. REST and its corepressors mediate plasticity of neuronal gene chromatin throughout neurogenesis. *Cell* 121: 645-657.
- Lee, M.G., et al. 2005. An essential role for CoREST in nucleosomal Histone 3 Lysine 4 demethylation. *Nature* 437: 432-435.
- Gu, H., et al. 2005. Components of the REST/CoREST/histone deacetylase repressor complex are disrupted, modified, and translocated in HSV-1-infected cells. *Proc. Natl. Acad. Sci. USA* 102: 7571-7576.
- Lakowski, B., et al. 2006. CoREST-like complexes regulate chromatin modification and neuronal gene expression. *J. Mol. Neurosci.* 29: 227-239.

CHROMOSOMAL LOCATION

Genetic locus: RCOR3 (human) mapping to 1q32.2.

STORAGE

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

SOURCE

RCOR3 (B-20) is a purified rabbit polyclonal antibody raised against RCOR3 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

RCOR3 (B-20) is recommended for detection of RCOR3 of mouse and 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), immunohistochemistry (including paraffin-embedded sections) (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 RCOR3 siRNA (h): sc-88050, RCOR3 siRNA (m): sc-152775, RCOR3 shRNA Plasmid (h): sc-88050-SH, RCOR3 shRNA Plasmid (m): sc-152775-SH, RCOR3 shRNA (h) Lentiviral Particles: sc-88050-V and RCOR3 shRNA (m) Lentiviral Particles: sc-152775-V.

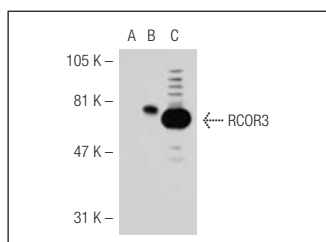
Molecular Weight of RCOR3: 56 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

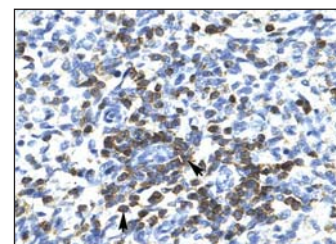
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rat IgG-HRP: sc-2006 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-rat IgG-HRP: sc-2032 (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-rat IgG-FITC: sc-2011 (dilution range: 1:100-1:400) or goat anti-rat IgG-TR: sc-2782 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ABC: sc-2019 rat IgG Staining System.

DATA



RCOR3 (B-20): sc-102079. Western blot analysis of RCOR3 expression in non-transfected 293T: sc-117752 (A), human RCOR3 transfected 293T: sc-114485 (B) and Jurkat (C) whole cell lysates.



RCOR3 (B-20): sc-102079. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing nuclear and cytoplasmic staining.

RESEARCH USE

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