

# RCOR3 (N-12): sc-132064

## BACKGROUND

In mammals, the CoREST (co)repressor 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

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- 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.
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- Gu, H., et al. 2007. Herpes simplex virus-infected cell protein 0 blocks the silencing of viral DNA by dissociating histone deacetylases from the CoREST-REST complex. *Proc. Natl. Acad. Sci. USA* 104: 17134-17139.
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## CHROMOSOMAL LOCATION

Genetic locus: RCOR3 (human) mapping to 1q32.2; Rcor3 (mouse) mapping to 1 H6.

## SOURCE

RCOR3 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RCOR3 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-132064 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

RCOR3 (N-12) is recommended for detection of RCOR3 isoforms 1 and 2 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); non cross-reactive with family member RCOR2.

RCOR3 (N-12) is also recommended for detection of RCOR3 isoforms 1 and 2 in additional species, including equine, canine and bovine.

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