SANTA CRUZ BIOTECHNOLOGY, INC.

CoREST (C-20): sc-23449

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NRSF (neuron-restrictive silencer factor, also designated XBR and REST for RE1-silencing factor) is a silencer protein that represses neuronal gene transcription in non-neuronal cells. NRSF-mediated repression requires histone deacetylase activity because repressed genes are associated with hypoacetylated chromatin. HDAC is recruited to the NRSF repressor complex by two co-repressors, Sin3A and CoREST. CoREST interacts with a single zinc finger motif in the carboxy-terminal repressor domain of NRSF, whereas Sin3A interacts with NRSF's amino-terminal repressor domain. In addition, CoREST interacts with HDAC through a SANT domain, which is found in other HDAC interacting proteins such as NCoR, MTA1 and MTA2. CoREST is an integral component of the NRSF repressor complex. Its functionality has been conserved in several species, including human, mouse, *Xenopus* and *C. elegans*.

REFERENCES

1. Andres, 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.
2. Grimes, J.A., et al. 2000. The co-repressor mSin3A is a functional component of the REST-CoREST repressor complex. J. Biol. Chem. 275: 9461-9467.
3. Kojima, T., et al. 2001. Cell-type non-selective transcription of mouse and human genes encoding neural-restrictive silencer factor. Brain Res. Mol. 90: 174-186.
4. You, A., et al. 2001. CoREST is an integral component of the CoREST-human histone deacetylase complex. Proc. Natl. Acad. Sci. USA 98: 1454-1458.
5. Tontsch, S., et al. 2001. Identification and localization of M-CoREST (1A13), a mouse homologue of the human transcriptional co-repressor CoREST, in the developing mouse CNS. Mech. Dev. 108: 165-169.
6. Battaglioli, E., et al. 2002. REST repression of neuronal genes requires components of the hSWI.SNF complex. J. Biol. Chem. 277: 41038-41045.
7. Lunyak, V.V., et al. 2002. Corepressor-dependent silencing of chromosomal regions encoding neuronal genes. Science 298: 1747-1752.

CHROMOSOMAL LOCATION

Genetic locus: CORES T (human) mapping to 14q32.31; Corest (mouse) mapping to 12 F1.

SOURCE

CoREST (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CoREST 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-23449 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CoREST (C-20) is recommended for detection of corepressor of REST (CoREST) of mouse, rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

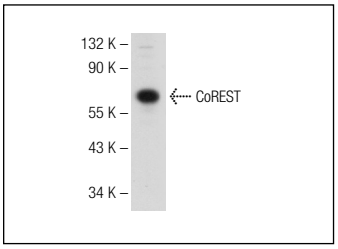
CoREST (C-20) is also recommended for detection of corepressor of REST (CoREST) in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CoREST siRNA (h): sc-38131, CoREST siRNA (m): sc-142516, CoREST shRNA Plasmid (h): sc-38131-SH, CoREST shRNA Plasmid (m): sc-142516-SH, CoREST shRNA (h) Lentiviral Particles: sc-38131-V and CoREST shRNA (m) Lentiviral Particles: sc-142516-V.

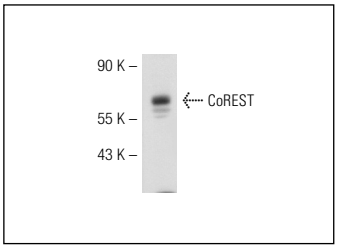
Molecular Weight of coREST: 66 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Jurkat whole cell lysate: sc-2204 or MOLT-4 nuclear extract: sc-2151.

DATA



CoREST (C-20): sc-23449. Western blot analysis of CoREST expression in MOLT-4 nuclear extract.



CoREST (C-20): sc-23449. Western blot analysis of CoREST expression in HeLa nuclear extract.

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 or our catalog for detailed protocols and support products.