SANTA CRUZ BIOTECHNOLOGY, INC.

SMRT (N-20): sc-1610

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Retinoids are metabolites of vitamin A (retinol) and represent important signaling molecules during vertebrate development and tissue differentiation. Retinoic acid receptors (RARs) have a high affinity for all trans retinoic acids and belong to the same class of nuclear transcription factors as thyroid hormone receptors, vitamin D_3 receptor and ecdysone receptor. Two cofactors that function to repress transcription, designated SMRT (silencing mediator for RARs and thyroid receptors (TR)) and N-CoR, associate with TR and RAR in their unliganded state and are released from them upon ligand binding. The carboxy termini of both proteins contain receptor interacting domains while their amino termini contain two repressor domains. SMRT is comprised of 1,495 amino acids and contains an 8 amino acid sequence that is not present in SMRTe (SMRT-extended), which contains 2,514 amino acids. SMRTe contains an N-terminal sequence spanning over 1,000 amino acids that is not present in SMRT, but that shows significant similarity with N-CoR. SMRTe expression is regulated during cell cycle progression, suggesting a role for SMRTe in the regulation of cycle-specific gene expression in diverse signaling pathways.

CHROMOSOMAL LOCATION

Genetic locus: NCOR2 (human) mapping to 12q24.31.

SOURCE

SMRT (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SMRT 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-1610 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SMRT (N-20) is recommended for detection of SMRT of 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).

Suitable for use as control antibody for SMRTe siRNA (h): sc-36514, SMRTe shRNA Plasmid (h): sc-36514-SH and SMRTe shRNA (h) Lentiviral Particles: sc-36514-V.

Molecular Weight of SMRT: 160 kDa.

Molecular Weight of SMRTe: 270 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

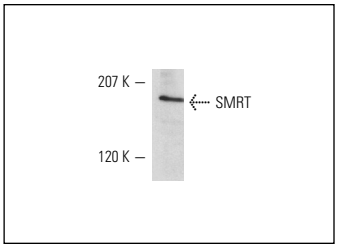
STORAGE

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.

DATA



SMRT (N-20): sc-1610. Western blot analysis of SMRT expression in HeLa nuclear extract.

SELECT PRODUCT CITATIONS

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