# SANTA CRUZ BIOTECHNOLOGY, INC.

# RUNX1 (N-20): sc-8563



# BACKGROUND

The mammalian Runt-related transcription factor (RUNX) family comprises three members, RUNX1 (also designated AML-1, PEBP2 $\alpha$ B, CBFA2), RUNX2 (also designated AML-3, PEBP2 $\alpha$ A, CBFA1, Osf2) and RUNX3 (also designated AML-2, PEBP $\alpha$ C, CBFA3). RUNX family members are DNA-binding proteins that regulate the expression of genes involved in cellular differentiation and cell cycle progression. RUNX1 is involved in hematopoiesis and is frequently targeted in human leukemia by chromosomal translocations that fuse the DNA-binding domain of RUNX1 to other transcription factors and corepressor molecules. In addition to its role in leukemogenesis, RUNX1 is also involved in sensory neuron diversification. Specifically, RUNX1 promotes axonal growth, is selectively expressed in neural crest-derived TrkA+ sensory neurons and mediates TrkA transactivation in migratory neural crest cells. Alternative splicing gives rise to several isoforms of RUNX1.

#### SOURCE

RUNX1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RUNX1 of human origin.

# PRODUCT

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

Blocking peptide available for competition studies, sc-8563 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-8563 X, 200  $\mu g/0.1$  ml.

#### **APPLICATIONS**

RUNX1 (N-20) is recommended for detection of a broad range of RUNX1 (Runt-related transcription factor 1) isoforms 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).

RUNX1 (N-20) is also recommended for detection of a broad range of RUNX1 (Runt-related transcription factor 1) isoforms in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for RUNX1 siRNA (h): sc-37677, RUNX1 siRNA (m): sc-37678, RUNX1 shRNA Plasmid (h): sc-37677-SH, RUNX1 shRNA Plasmid (m): sc-37678-SH, RUNX1 shRNA (h) Lentiviral Particles: sc-37677-V and RUNX1 shRNA (m) Lentiviral Particles: sc-37678-V.

RUNX1 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RUNX1: 20-52 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, U-937 nuclear extract: sc-2156 or HL-60 nuclear extract: sc-2147.

# STORAGE

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### SELECT PRODUCT CITATIONS

- 1. Ortiz, B.D., et al. 2001. Function and factor interactions of a locus control region element in the mouse T cell receptor- $\alpha$ /Dad1 gene locus. J. Immunol. 167: 3836-3845.
- 2. Zhang, J., et al. 2004. E protein silencing by the leukemogenic AML1-ETO fusion protein. Science 305: 1286-1289.
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- Kaur, G., et al. 2010. RUNX1/core binding factor A2 regulates platelet 12-lipoxygenase gene (ALOX12): studies in human RUNX1 haplodeficiency. Blood 115: 3128-3135.
- 8. Jalagadugula, G., et al. 2010. Regulation of platelet myosin light chain (MYL9) by RUNX1: implications for thrombocytopenia and platelet dysfunction in RUNX1 haplodeficiency. Blood 116: 6037-6045.
- Toribio, R.E., et al. 2010. The midregion, nuclear localization sequence, and C terminus of PTHrP regulate skeletal development, hematopoiesis, and survival in mice. FASEB J. 24: 1947-1957.
- Leclerc, G.J., et al. 2010. Folylpolyglutamate synthetase gene transcription is regulated by a multiprotein complex that binds the TEL-AML1 fusion in acute lymphoblastic leukemia. Leuk. Res. 34: 1601-1609.
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#### **RESEARCH USE**

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



# Try RUNX1 (A-2): sc-365644 or RUNX1 (DW71):

sc-101146, our highly recommended monoclonal aternatives to RUNX1 (N-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **RUNX1 (A-2): sc-365644**.