SANTA CRUZ BIOTECHNOLOGY, INC.

PU.1 (E-19): sc-5948

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Ets family (Ets-1, Ets-2, Erg, PU.1 (Spi-1), Spi-B and Spi-C) transcription factors are DNA-binding proteins that influence lymphoid development and activity. The Ets family monomeric proteins bind the consensus DNA site GGA(A/T) through a unique winged helix-turn-helix motif known as the Ets domain. PU.1 (Spi-1), Spi-B and Spi-C are closely related Ets family members, as they share a conserved divergent sequence within the Ets domain which enables their binding to the non-canonical AGAA sites. PU.1 transactivates a large number of B-cell genes, such as those encoding CD72, CD20 and Btk, and Spi-B enhances expression of many of these same target genes. PU.1 is expressed in a wide variety of hematopoetic cells, including B-cells, early T-cells, megakaryocytes, granulocytes, mast cells, immature erythrocytes and myeloid cells. Alternatively, Spi-B expression is limited to B-cells and immature T-cells, where expression accumulates through T-lineage commitment and then is dramatically absent following the β-selection checkpoint.

CHROMOSOMAL LOCATION

Genetic locus: Sfpi1 (mouse) mapping to 2 E1.

SOURCE

PU.1 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PU.1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-5948 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-5948 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PU.1 (E-19) is recommended for detection of PU.1 of mouse and rat 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 PU.1 siRNA (m): sc-36331, PU.1 shRNA Plasmid (m): sc-36331-SH and PU.1 shRNA (m) Lentiviral Particles: sc-36331-V.

PU.1 (E-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

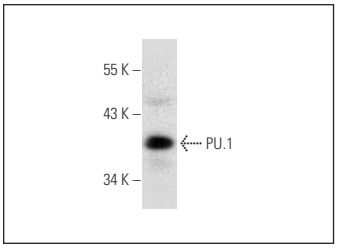
Molecular Weight of PU.1: 40 kDa.

Positive Controls: RAW 264.7 nuclear extract: sc-24961, NIH/3T3 nuclear extract: sc-2138 or CTLL-2 cell lysate: sc-2242.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



PU.1 (E-19): sc-5948. Western blot analysis of PU.1 expression in RAW 264.7 nuclear extract.

SELECT PRODUCT CITATIONS

1. Chou, S.T., et al. 2009. Graded repression of PU.1/Sfpi1 gene transcription by GATA factors regulates hematopoietic cell fate. Blood 114: 983-994.

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.

MONOS Satisfaction Guaranteed

Try **PU.1 (C-3): sc-390405** or **PU.1 (Spi-1) (B-9): sc-390659**, our highly recommended monoclonal alternatives to PU.1 (E-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PU.1 (C-3): sc-390405**.