SANTA CRUZ BIOTECHNOLOGY, INC.

PREP-1 (N-15): sc-6245

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Human pre-B cell acute leukemias are frequently associated with a t(q23;p13.3) chromosomal rearrangement which creates a chimeric gene encoding a fusion between the E2A and Pbx 1 gene products. Fusion cDNAs have been shown to encode a protein comprised of two-thirds of the E2A transactivation domain, fused to a homeobox protein termed Prl or Pbx 1. Two highly related Pbx proteins, designated Pbx 2 and Pbx 3, have also been identified. Pbx 2 and Pbx 3 share a 92% and 94% identity, respectively, with Pbx 1 over a 266 amino acid region flanking their homeobox domains, while all 3 proteins are quite divergent at their amino- and carboxy-termini. Pbx-regulating protein-1, PREP-1 is a DNA-binding protein that forms stable complexes with Pbx proteins which synergize with AP-1 binding factors to augment transcription of the urokinase gene. Also referred to as UEF3, PRP-1 or p64, PREP-1 appears to be a general DNA-binding factor involved in modulating the transcriptional activity of AP-1 containing promoters.

CHROMOSOMAL LOCATION

Genetic locus: PKNOX1 (human) mapping to 21q22.3.

SOURCE

PREP-1 (N-15) is a rabbit polyclonal antibody raised against amino acids 15-436 mapping at the N-terminus of PREP-1 (Pbx-regulating protein-1) 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-6245 X, 200 µg/0.1 ml.

APPLICATIONS

PREP-1 (N-15) is recommended for detection of PREP-1 p64 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PREP-1 (N-15) is also recommended for detection of PREP-1 p64 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for PREP-1 siRNA (h): sc-38758, PREP-1 shRNA Plasmid (h): sc-38758-SH and PREP-1 shRNA (h) Lentiviral Particles: sc-38758-V.

PREP-1 (N-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PREP-1: 64 kDa.

Positive Controls: A-431 nuclear extract: sc-2122, human breast tumor extract or K-562 nuclear extract: sc-2130.

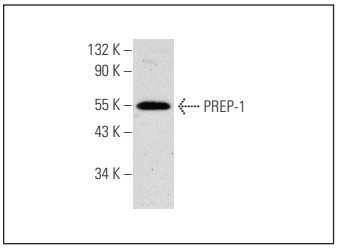
RESEARCH USE

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

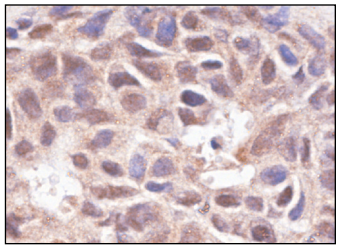
STORAGE

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

DATA



PREP-1 (N-15): sc-6245. Western blot analysis of PREP-1 expression in A-431 nuclear extract.



PREP-1 (N-15): sc-6245. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor showing nuclear and cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Schnabel, C.A., et al. 2000. HoxA9-mediated immortalization of myeloid progenitors requires functional interactions with TALE cofactors Pbx and Meis. Oncogene 19: 608-616.
2. Herzig, S., et al. 2000. Heterodimeric Pbx-Prep1 homeodomain protein binding to the glucagon gene restricting transcription in a cell type-dependent manner. J. Biol. Chem. 275: 27989-27999.
3. Fognani, C., et al. 2000. cRel-TD kinase: a serine/threonine kinase binding *in vivo* and *in vitro* c-Rel and phosphorylating its transactivation domain. Oncogene 19: 2224-2232.
4. Chen, J.H. and Ozanne, S.E. 2006. Deep senescent human fibroblasts show diminished DNA damage foci but retain checkpoint capacity to oxidative stress. FEBS Lett. 580: 6669-6673.
5. Jave-Suárez, L.F., et al. 2006. The HOXC13-controlled expression of early hair keratin genes in the human hair follicle does not involve TALE proteins MEIS and PREP as cofactors. Arch. Dermatol. Res. 297: 372-376.
6. Sobczak, M., et al. 2010. Functional characteristic of PC12 cells with reduced microsomal glutathione transferase 1. Acta Biochim. Pol. 57: 589-596.
7. Gui, J., et al. 2011. Enormous influence of TNIK knockdown on intracellular signals and cell survival. Hum. Cell 24: 121-126.
8. Ferretti, E., et al. 2011. A conserved Pbx-Wnt-p63-Irf6 regulatory module controls face morphogenesis by promoting epithelial apoptosis. Dev. Cell 21: 627-641.