SANTA CRUZ BIOTECHNOLOGY, INC.

PLZF (N-21): sc-11146

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Hypermethylated in cancer (HIC-1) was originally identified as a target of p53-induced gene expression. HIC-1 is deleted in the genetic disorder Miller-Dieker syndrome (MDS), and the expression of HIC-1 is also frequently suppressed in leukemia and various cancers due to the hypermethylation of specific DNA regions and the resulting transcriptional silencing. These and other studies indicate that HIC-1 acts as a putative tumor suppressor protein that mediates transcriptional repression. HIC-1 is ubiquitously expressed in adult tissues. Its structure is defined by five zinc fingers and an N-terminal broad complex POZ (or BTB) domain. The BTB/POZ domain mediates homomeric and heteromeric POZ-POZ interactions and is common to transcriptional regulators involved in chromatin modeling. In several BTB/POZ containing proteins, including Bcl-6 and the promyelocytic leukemia zinc-finger (PLZF) oncoprotein, this domain interacts with the SMRT/N-CoR-mSin3A HDAC complex and is directly involved in repressing and silencing gene transcription. When this domain is deleted, as with the oncogenic PLZF-RAR chimera of promyelocytic leukemias, this transcriptional repression is attenuated. Conversely, HIC-1 does not interact with components of the HDAC complex, suggesting that HIC-1-induced transcriptional repression is unassociated with the POZ/BTB domain.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB16 (human) mapping to 11q23.2; Zbtb16 (mouse) mapping to 9 A5.3.

SOURCE

PLZF (N-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PLZF 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-11146 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PLZF (N-21) is recommended for detection of PLZF isoforms A and B 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). PLZF (N-21) is also recommended for detection of PLZF isoforms A and B in additional species, including equine, canine, bovine and porcine.

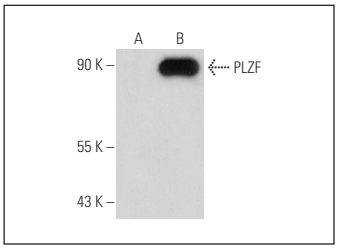
Suitable for use as control antibody for PLZF siRNA (h): sc-37149, PLZF siRNA (m): sc-37150, PLZF siRNA (r): sc-156168, PLZF shRNA Plasmid (h): sc-37149-SH, PLZF shRNA Plasmid (m): sc-37150-SH, PLZF shRNA Plasmid (r): sc-156168-SH, PLZF shRNA (h) Lentiviral Particles: sc-37149-V, PLZF shRNA (m) Lentiviral Particles: sc-37150-V and PLZF shRNA (r) Lentiviral Particles: sc-156168-V.

Molecular Weight of PLZF: 80-90 kDa.

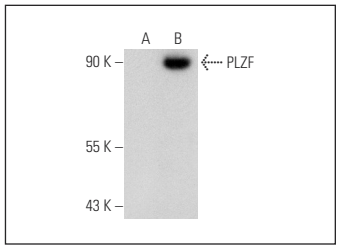
STORAGE

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

DATA



PLZF (N-21): sc-11146. Western blot analysis of PLZF expression in non-transfected: sc-117752 (**A**) and human PLZF transfected: sc-114505 (**B**) 293T whole cell lysates.



PLZF (N-21): sc-11146. Western blot analysis of PLZF expression in non-transfected: sc-117752 (**A**) and human PLZF transfected: sc-113938 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Schefe, J.H., et al. 2008. Prorenin engages the (pro)renin receptor like renin and both ligand activities are unopposed by aliskiren. J. Hypertens. 26: 1787-1794.
2. Reding, S.C., et al. 2010. THY1 is a conserved marker of undifferentiated spermatogonia in the pre-pubertal bull testis. Reproduction 139: 893-903.
3. Gautier, A., et al. 2014. Maintenance of potential spermatogonial stem cells *in vitro* by GDNF treatment in a chondrichthyan model (*Scyliorhinus canicula* L.). Biol. Reprod. 91: 91.
4. Pimenta, M.T., et al. 2015. Relaxin affects cell organization and early and late stages of spermatogenesis in a coculture of rat testicular cells. Andrology 3: 772-786.
5. Li, R., et al. 2015. Oct4-GFP expression during transformation of gonocytes into spermatogonial stem cells in the perinatal mouse testis. J. Pediatr. Surg. 50: 2084-2089.

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.