SANTA CRUZ BIOTECHNOLOGY, INC.

PGBD1 (Y-19): sc-130036

BACKGROUND

Initially characterized in the cabbage looper moth, *Trichoplusia ni*, the PGBD (PiggyBac transposable element-derived) family comprises a group of transposases that are conserved in a wide variety of species, including protozoa and primates. More specifically, while PGBD3 and PGBD4 are primate-specific genes, the other three members of the PGBD family (namely PGBD1, PGBD2 and PGBD5) are conserved among a variety of vertebrates. PGBD1 (PiggyBac transposable element derived 1), also known as SCAND4 or HUCEP-4, is an 809 amino acid protein that contains one SCAN box domain and is a member of the PGBD family. Expressed specifically in brain tissue, PGBD1 may, via its SCAN box domain, be involved in transcriptional regulation events within the nucleus.

REFERENCES

1. Pengue, G., Calabrò, V., Bartoli, P.C., Pagliuca, A. and Lania, L. 1994. Repression of transcriptional activity at a distance by the evolutionarily conserved KRAB domain present in a subfamily of zinc finger proteins. Nucleic Acids Res. 22: 2908-2914.
2. Bonaldo, M.F., Lennon, G. and Soares, M.B. 1996. Normalization and subtraction: two approaches to facilitate gene discovery. Genome Res. 6: 791-806.
3. Suzuki, Y., Yoshitomo-Nakagawa, K., Maruyama, K., Suyama, A. and Sugano, S. 1997. Construction and characterization of a full length-enriched and a 5'-end-enriched cDNA library. Gene 200: 149-156.
4. Williams, A.J., Blacklow, S.C. and Collins, T. 1999. The zinc finger-associated SCAN box is a conserved oligomerization domain. Mol. Cell. Biol. 19: 8526-8535.
5. Schumacher, C., Wang, H., Honer, C., Ding, W., Koehn, J., Lawrence, Q., Coulis, C.M., Wang, L.L., Ballinger, D., Bowen, B.R. and Wagner, S. 2000. The SCAN domain mediates selective oligomerization. J. Biol. Chem. 275: 17173-17179.
6. Keith, J.H., Schaeper, C.A., Fraser, T.S. and Fraser, M.J. 2008. Mutational analysis of highly conserved aspartate residues essential to the catalytic core of the piggyBac transposase. BMC Mol. Biol. 9: 73.

CHROMOSOMAL LOCATION

Genetic locus: PGBD1 (human) mapping to 6p22.1.

SOURCE

PGBD1 (Y-19) is a purified rabbit polyclonal antibody raised against PGBD1 of human origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

PGBD1 (Y-19) is recommended for detection of PGBD1 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PGBD1 siRNA (h): sc-95167, PGBD1 shRNA Plasmid (h): sc-95167-SH and PGBD1 shRNA (h) Lentiviral Particles: sc-95167-V.

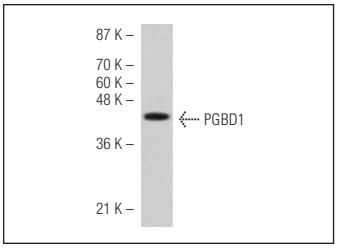
Molecular Weight of PGBD1: 93 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



PGBD1 (Y-19): sc-130036. Western blot analysis of PGBD1 expression in Hep G2 whole cell lysate.

RESEARCH USE

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