SANTA CRUZ BIOTECHNOLOGY, INC.

GATAD2B (ZZ-9): sc-101052

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GATAD2B (GATA zinc finger domain containing 2B), also known as P66β, is a 593 amino acid protein that contains one GATA-type zinc finger and localizes to discrete foci within the nucleus. Expressed ubiquitously, GATAD2B is thought to function as a transcriptional repressor that interacts with the methyl-CpG-binding protein MBD3, a component of the MeCP1 complex. MeCP1 is a multi-subunit complex that represses transcription via histone deacetylation and nucleosomal remodeling, thereby condensing chromatin structure and preventing transcription. GATAD2B interacts with and recruits MBD3 to specific areas within the nucleus, thereby participating in MeCP1 complex-mediated transcriptional repression. GATAD2B is expressed in various cancer cell lines, suggesting a possible role in carcinogenesis.

REFERENCES

1. Brackertz, M., Boeke, J., Zhang, R. and Renkawitz, R. 2002. Two highly related p66 proteins comprise a new family of potent transcriptional repressors interacting with MBD2 and MBD3. J. Biol. Chem. 277: 40958-40966.
2. Feng, Q., Cao, R., Xia, L., Erdjument-Bromage, H., Tempst, P. and Zhang, Y. 2002. Identification and functional characterization of the p66/p68 components of the MeCP1 complex. Mol. Cell. Biol. 22: 536-546.
3. Gong, Z., Brackertz, M. and Renkawitz, R. 2006. SUMO modification enhances p66-mediated transcriptional repression of the Mi-2/NuRD complex. Mol. Cell. Biol. 26: 4519-4528.
4. Brackertz, M., Gong, Z., Leers, J. and Renkawitz, R. 2006. p66α and p66β of the Mi-2/NuRD complex mediate MBD2 and histone interaction. Nucleic Acids Res. 34: 397-406.
5. Marino, S. and Nusse, R. 2007. Mutants in the mouse NuRD/Mi2 component P66α are embryonic lethal. PLoS ONE 2: e519.

CHROMOSOMAL LOCATION

Genetic locus: GATAD2B (human) mapping to 1q21.3; Gatad2b (mouse) mapping to 3 F1.

SOURCE

GATAD2B (ZZ-9) is a mouse monoclonal antibody raised against recombinant GATAD2B of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 for detailed protocols and support products.

APPLICATIONS

GATAD2B (ZZ-9) is recommended for detection of GATAD2B 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GATAD2B siRNA (h): sc-88495, GATAD2B siRNA (m): sc-145343, GATAD2B shRNA Plasmid (h): sc-88495-SH, GATAD2B shRNA Plasmid (m): sc-145343-SH, GATAD2B shRNA (h) Lentiviral Particles: sc-88495-V and GATAD2B shRNA (m) Lentiviral Particles: sc-145343-V.

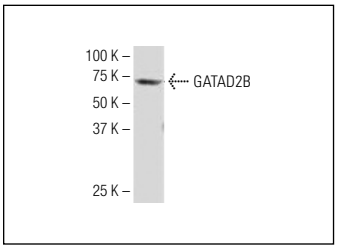
Molecular Weight of GATAD2B: 66 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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



GATAD2B (ZZ-9): sc-101052. Western blot analysis of GATAD2B expression in Jurkat whole cell lysate.

RESEARCH USE

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