SANTA CRUZ BIOTECHNOLOGY, INC.

# ZGPAT (N-16): sc-86033

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

ZGPAT (Zinc finger CCCH-type with G patch domain-containing protein), also known as zinc finger CCCH domain-containing protein 9 (ZC3HDC9) and G patch domain-containing protein 6 (GPATC6), is a 531 amino acid protein that contains a G-patch domain, which is typically found within RNA-binding proteins. Proteins that contain the G-patch domain include some tumor suppressor and DNA-damage repair proteins. ZGPAT also contains one C3H1-type zinc finger, which further supports its probable role as an RNA-binding protein. The gene encoding ZGPAT is inactivated via differential methylation in a oligodendroglioma cell line, suggesting that ZGPAT may have utility as a biomarker. There are two isoforms of ZGPAT that are produced as a result of alternative splicing events.

## REFERENCES


1. Aravind, L., et al. 1999. G-patch: a new conserved domain in eukaryotic RNA-processing proteins and type D retroviral polyproteins. Trends Biochem. Sci. 24: 342-344.
2. Gueydan, C., et al. 2002. Identification of ribosomal proteins specific to higher eukaryotic organisms. J. Biol. Chem. 277: 45034-45040.
3. Svec, M., et al. 2004. Proteinases of betaretroviruses bind single-stranded nucleic acids through a novel interaction module, the G-patch. FEBS Lett. 576: 271-276.
4. Lin, Y., et al. 2005. A CCCH zinc finger conserved in a replication protein a homolog found in diverse Euryarchaeotes. J. Bacteriol. 187: 7881-7889.
5. Bauerová-Zábranská, H., et al. 2005. The RNA binding G-patch domain in retroviral protease is important for infectivity and D-type morphogenesis of Mason-Pfizer monkey virus. J. Biol. Chem. 280: 42106-42112.
6. Ordway, J.M., et al. 2006. Comprehensive DNA methylation profiling in a human cancer genome identifies novel epigenetic targets. Carcinogenesis 27: 2409-2423.
7. Beier, V., et al. 2007. Monitoring methylation changes in cancer. Adv. Biochem. Eng. Biotechnol. 104: 1-11.


## CHROMOSOMAL LOCATION

Genetic locus: ZGPAT (human) mapping to 20q13.33; Zgpat (mouse) mapping to 2 H4.

## SOURCE

ZGPAT (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ZGPAT 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-86033 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86033 X, 100 µg/0.1 ml.

## APPLICATIONS

ZGPAT (N-16) is recommended for detection of ZGPAT 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).

Suitable for use as control antibody for ZGPAT siRNA (h): sc-76959, ZGPAT siRNA (m): sc-155608, ZGPAT shRNA Plasmid (h): sc-76959-SH, ZGPAT shRNA Plasmid (m): sc-155608-SH, ZGPAT shRNA (h) Lentiviral Particles: sc-76959-V and ZGPAT shRNA (m) Lentiviral Particles: sc-155608-V.

ZGPAT (N-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

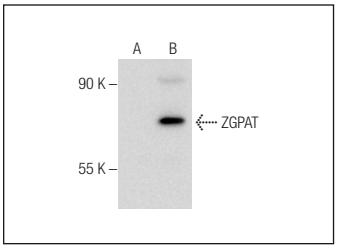
Molecular Weight of ZGPAT: 57 kDa.

Positive Controls: ZGPAT (m): 293T Lysate: sc-127817 or ZGPAT (h): 293T Lysate: sc-371408.

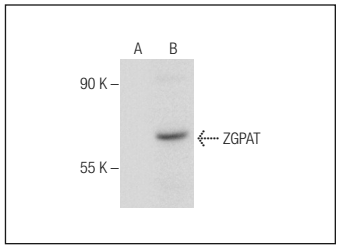
## RECOMMENDED SECONDARY REAGENTS

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




ZGPAT (N-16): sc-86033. Western blot analysis of ZGPAT expression in non-transfected: sc-117752 (**A**) and mouse ZGPAT transfected: sc-127817 (**B**) 293T whole cell lysates.




ZGPAT (N-16): sc-86033. Western blot analysis of ZGPAT expression in non-transfected: sc-117752 (**A**) and human ZGPAT transfected: sc-371408 (**B**) 293T whole cell lysates.

## STORAGE

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

## RESEARCH USE

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