

ZAC1 (M-300): sc-22812

BACKGROUND

Pleiomorphic adenoma gene (PLAG1) encodes a zinc finger protein and is the target gene for pleiomorphic adenomas of the salivary gland. The PLAG family of zinc finger proteins include PLAG1, ZAC1 and PLAG-like 2 (PLAGL2). ZAC1, also known as PLAGL1, concomitantly controls apoptosis and cell cycle arrest through separate pathways. ZAC1 also acts as a positive or negative transcriptional cofactor for nuclear receptors, depending on the expression of functional p53. ZAC1 is broadly expressed in embryo, with highest expression in the liver primordium, the umbilical region and the neural tube. PLAGL1 is also expressed in normal mammary gland. PLAGL2 functions as a positive regulator of transcription and localizes to the nucleus. PLAGL2 and ZAC1 bind to the DNA consensus sequence ACGGGGGCCCTTTA. PLAGL2 is ubiquitously expressed with particular abundance in spleen, lung and testis where it may be involved in cell cycle arrest and apoptosis of tumor cells.

CHROMOSOMAL LOCATION

Genetic locus: Plag1 (mouse) mapping to 10 A2.

SOURCE

ZAC1 (M-300) is a rabbit polyclonal antibody raised against amino acids 211-510 mapping to an internal region of ZAC1 of mouse 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-22812 X, 200 µg/0.1 ml.

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.

APPLICATIONS

ZAC1 (M-300) is recommended for detection of ZAC1 of mouse and rat 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 ZAC1 siRNA (m): sc-38184, ZAC1 shRNA Plasmid (m): sc-38184-SH and ZAC1 shRNA (m) Lentiviral Particles: sc-38184-V.

ZAC1 (M-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

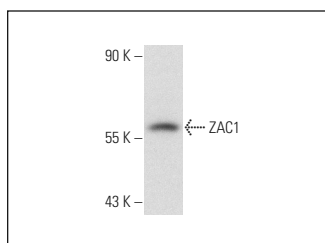
Molecular Weight of ZAC1: 51 kDa.

Positive Controls: GH3 whole cell lysate: sc-364777.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ZAC1 (M-300): sc-22812. Western blot analysis of ZAC1 expression in GH3 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Czubryt, M.P., et al. 2010. Regulation of cardiomyocyte Glut4 expression by ZAC1. *J. Biol. Chem.* 285: 16942-16950.
2. Warzee, B., et al. 2010. Viral induction of Zac1b through TLR3- and IRF3-dependent pathways. *Mol. Immunol.* 48: 119-127.
3. Kovacs, G., et al. 2016. Absence of rybp compromises neural differentiation of embryonic stem cells. *Stem Cells Int.* 2016: 4034620.

PROTOCOLS

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

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