SANTA CRUZ BIOTECHNOLOGY, INC.

ZAG (F-6): sc-271957

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ZAG (Zn-α2-glycoprotein, also designated Zn-α2-gp) is a soluble, secreted protein found in serum and other body fluids (such as cerebrospinal fluid, blood plasma, urine and sweat). ZAG has a tendency to precipitate with zinc salts, has electrophoretic mobility in the region of the two globulins, and has 18% carbohydrate content. A member of the immunoglobulin superfamily, ZAG has a high degree of sequence similarity to class-I major histocompatibility complex (MHC) antigens. The ZAG structure includes a large groove analogous to MHC class I peptide binding grooves. The crystal structure of ZAG resembles a MHC class I heavy chain but does not bind the class I light chain β-2-Microglobulin, unlike other MHC related proteins. ZAG stimulates lipid degradation in adipocytes and its overexpression causes the extensive fat losses associated with some advanced cancers.

REFERENCES

1. Jirka, M. and Blanicky, P. 1973. Zn-α2-glycoprotein in sweat. Cas. Lek. Cesk. 112: 1606-1608.
2. Ekman, R., et al. 1976. Renal handling of Zn-α2-glycoprotein as compared with that of albumin and the retinol-binding protein. J. Clin. Invest. 57: 945-954.
3. Shibata, S. and Miura, K. 1982. Nephritogenic glycoprotein. IX. Plasma Zn-α2-glycoprotein as a second source of nephritogenic glycoprotein in urine. Nephron 31: 170-176.
4. Uria, J.A., et al. 1996. Alternative splicing gives rise to two novel long isoforms of Zn-α2-glycoprotein, a member of the immunoglobulin superfamily. Gene 169: 233-236.

CHROMOSOMAL LOCATION

Genetic locus: Azgp1 (mouse) mapping to 5 G2.

SOURCE

ZAG (F-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 257-279 near the C-terminus of ZAG of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZAG (F-6) is available conjugated to agarose (sc-271957 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271957 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271957 PE), fluorescein (sc-271957 FITC), Alexa Fluor® 488 (sc-271957 AF488), Alexa Fluor® 546 (sc-271957 AF546), Alexa Fluor® 594 (sc-271957 AF594) or Alexa Fluor® 647 (sc-271957 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271957 AF680) or Alexa Fluor® 790 (sc-271957 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271957 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ZAG (F-6) is recommended for detection of ZAG of mouse origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 ZAG siRNA (m): sc-36866, ZAG shRNA Plasmid (m): sc-36866-SH and ZAG shRNA (m) Lentiviral Particles: sc-36866-V.

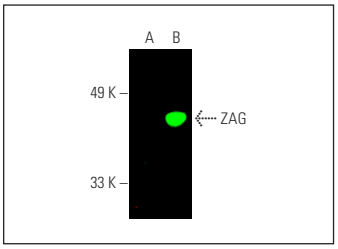
Molecular Weight of ZAG: 47 kDa.

Positive Controls: mouse spleen extract: sc-2391 or ZAG (m): 293T Lysate: sc-124693.

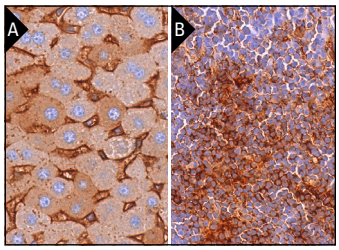
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGλ BP-HRP: sc-516132 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ZAG (F-6): sc-271957. Near-infrared western blot analysis of ZAG expression in non-transfected: sc-117752 (**A**) and mouse ZAG transfected: sc-124693 (**B**) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGλ BP-CFL 680: sc-516194.



ZAG (F-6): sc-271957. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing cytoplasmic staining of hepatocytes and cytoplasmic and membrane of hepatic sinusoidal cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lymph node tissue showing cytoplasmic and membrane staining of cells in germinal center and cells in non-germinal center (**B**).

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.