SANTA CRUZ BIOTECHNOLOGY, INC.

ZAG (H-21): sc-11238

BACKGROUND

ZAG (Zn-α2-glycoprotein, also designated Zn-α2-gp) is a 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. ZAG, a member of the immunoglobulin superfamily, has a high degree of sequence similarity to class-I major histocompatibility complex (MHC) antigens. The ZAG structure includes a large groove analogous to class I MHC peptide binding grooves. The crystal structure of ZAG resembles a class I MHC 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., et al. 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., et al. 1982. Nephritogenic glycoprotein. IX. Plasma Zn-α2-glycoprotein as a second source of nephritogenic glycoprotein in urine. Nephron 31: 170-176.

CHROMOSOMAL LOCATION

Genetic locus: AZGP1 (human) mapping to 7q22.1.

SOURCE

ZAG (H-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZAG 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-11238 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZAG (H-21) is recommended for detection of ZAG A, B, C and D chains 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)], 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 ZAG siRNA (h): sc-36865, ZAG shRNA Plasmid (h): sc-36865-SH and ZAG shRNA (h) Lentiviral Particles: sc-36865-V.

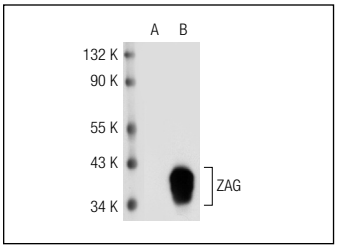
Molecular Weight of ZAG: 47 kDa.

Positive Controls: ZAG (h): 293T Lysate: sc-114991.

STORAGE

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

DATA



ZAG (H-21): sc-11238. Western blot analysis of ZAG expression in non-transfected: sc-117752 (**A**) and human ZAG transfected: sc-114991 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liu, A.Y., et al. 2005. Analysis of prostate cancer by proteomics using tissue specimens. J. Urol. 173: 73-78.
2. Henshall, S.M., et al. 2006. Zinc-α2-glycoprotein expression as a predictor of metastatic prostate cancer following radical prostatectomy. J. Natl. Cancer Inst. 98: 1420-1424.
3. Cannon, T., et al. 2007. Comparison of animal models for head and neck cancer cachexia. Laryngoscope 117: 2152-2158.
4. Ding, Z., et al. 2007. Identification of sperm forward motility-related proteins in human seminal plasma. Mol. Reprod. Dev. 74: 1124-31.
5. Schmitt, R., et al. 2008. Zag expression during aging suppresses proliferation after kidney injury. J. Am. Soc. Nephrol. 19: 2375-2383.
6. Stankovic, K.M., et al. 2008. Gene expression profiling of nasal polyps associated with chronic sinusitis and aspirin-sensitive asthma. Laryngoscope 118: 881-889.

RESEARCH USE

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

PROTOCOLS

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