SANTA CRUZ BIOTECHNOLOGY, INC.

ZAG (m): 293T Lysate: sc-124693

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.
5. Sanchez, L.M., et al. 1997. Biochemical characterization and crystalization of human Zn-α2-glycoprotein, a soluble class I major histocompatibility complex homolog. Proc. Natl. Acad. Sci. USA 94: 4626-4630.
6. Davidsson, P. and Nilsson, C.L. 1999. Peptide mapping of proteins in cerebrospinal fluid utilizing a rapid preparative two-dimensional electrophoretic procedure and matrix-assisted laser desorption/ionization mass spectrometry. Biochim. Biophys. Acta 1473: 391-399.
7. Sanchez, L.M., et al. 1999. Crystal structure of human ZAG, a fat-depleting factor related to MHC molecules. Science 283: 1914-1919.

CHROMOSOMAL LOCATION

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

PRODUCT

ZAG (m): 293T Lysate represents a lysate of mouse ZAG transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

ZAG (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ZAG antibodies. Recommended use: 10-20 µl per lane.

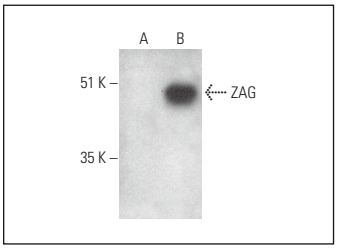
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ZAG (F-6): sc-271957 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ZAG expression in ZAG transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

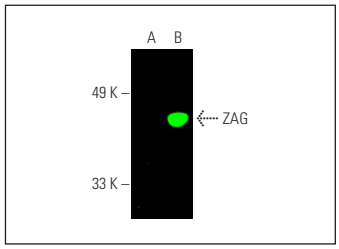
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ZAG (F-6): sc-271957. Western blot analysis of ZAG expression in non-transfected: sc-117752 (**A**) and mouse ZAG transfected: sc-124693 (**B**) 293T whole cell lysates.



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.

PROTOCOLS

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