

ZAG (G-20): sc-11245

BACKGROUND

ZAG (Zn- α 2-glycoprotein, also designated Zn- α 2-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 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

- Jirka, M., et al. 1973. Zn- α 2-glycoprotein in sweat. *Cas. Lek. Cesk.* 112: 1606-1608.
- Ekman, R., et al. 1976. Renal handling of Zn- α 2-glycoprotein as compared with that of albumin and the retinol-binding protein. *J. Clin. Invest.* 57: 945-954.
- Shibata, S., et al. 1982. Nephritogenic glycoprotein. IX. Plasma Zn-alpha2-glycoprotein as a second source of nephritogenic glycoprotein in urine. *Nephron* 31: 170-176.
- Uria, J.A., et al. 1996. Alternative splicing gives rise to two novel long isoforms of Zn- α 2-glycoprotein, a member of the immunoglobulin superfamily. *Gene* 169: 233-236.
- Sanchez, L.M., et al. 1997. Biochemical characterization and crystallization of human Zn- α 2-glycoprotein, a soluble class I major histocompatibility complex homolog. *Proc. Natl. Acad. Sci. USA* 94: 4626-4630.
- Davidsson, P., et al. 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.
- Sanchez, L.M., et al. 1999. Crystal structure of human ZAG, a fat-depleting factor related to MHC molecules. *Science* 283: 1914-1919.

SOURCE

ZAG (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ZAG of rat origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11245 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ZAG (G-20) is recommended for detection of ZAG of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

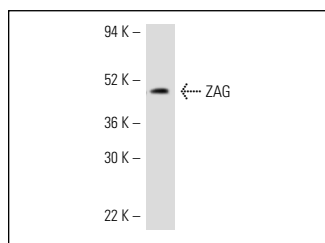
Suitable for use as control antibody for ZAG siRNA (m): sc-36866, ZAG shRNA Plasmid (m): sc-36866-SH and ZAG shRNA (m) Lentiviral Particles: sc-36866-V.

Molecular Weight of ZAG: 47 kDa.

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



ZAG (G-20): sc-11245. Western blot analysis of ZAG expression in mouse spleen tissue extract.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **ZAG (F-6): sc-271957**, our highly recommended monoclonal alternative to ZAG (G-20).