SANTA CRUZ BIOTECHNOLOGY, INC.

AGP-1/2/3/8 (G-18): sc-51023



BACKGROUND

AGP (α 1-acid glycoprotein) is an acute phase plasma protein synthesized by the liver. It functions to regulate the interaction between blood cells and endothelial cells, and together with haptoglobin and C reactive protein, it also mediates the extravasation of cells during infection and inflammation. Expression of AGP is induced by acute-phase stimulatory agents such as bacterial lipopolysaccharides. AGP has a high affinity, low capacity binding for basic drugs at physiological pH. In human plasma, AGP is found at levels of 0.5-1.4 mg/ml, though this is elevated during acute inflammation, and, as a result, levels of this protein can be used to diagnose inflammatory conditions. Multiple AGP genes exist, including AGP-1, AGP-2, AGP-3 and AGP-8. AGP-1 and AGP-2 contain five and six potential N-glycosylation sites, respectively. Abnormal expression of the APG-1 gene is linked to sarcoidosis and other immunogenetic diseases, while mutations in the APG-2 gene are associated with different types of carcinomas.

REFERENCES

- Umetsu, K., Ikeda, N., Kashimura, S. and Suzuki, T. 1986. Orosomucoid (ORM) typing by print lectinofixation: a new technique for isoelectric focusing. Two common alleles in Japan. Hum. Genet. 71: 223-224.
- 2. Lee, S.C., Chang, C.J., Lee, Y.M., Lei, H.Y., Lai, M.Y. and Chen, DS. 1989. Molecular cloning of cDNAs corresponding to two genes of α 1-acid glycoprotein and characterization of two alleles of AGP-1 in the mouse. DNA 8: 245-251.
- Carter, K.C., Post, D.J. and Papaconstantinou, J. 1991. Differential expression of the mouse α 1-acid glycoprotein genes (AGP-1 and AGP-2) during inflammation and aging. Biochim. Biophys. Acta 1089: 197-205.
- 4. Chang, C.J., Lai, M.Y., Chen, D.S. and Lee, S.C. 1992. Structure and expression of mouse α 1-acid glycoprotein gene-3 (AGP-3). DNA Cell Biol. 11: 315-320.
- Fan, C., Nylander, P.O., Stendahl, U., Thunell, M. and Beckman, L. 1995. Synergistic interaction between ORM1 and C3 types in disease associations. Exp. Clin. Immunogenet. 12: 92-95.
- Lin, D.B., Tsai, T.P. and Chen, W.K. 2003. Seroprevalence of Hepatitis C virus infection and its association with natural infection of Hepatitis B virus among preschool children in Taiwan. Eur. J. Epidemiol. 18: 245-249.
- 7. Ceciliani, F., Pocacqua, V., Provasi, E., Comunian, C., Bertolini, A., Bronzo, V., Moroni, P. and Sartorelli, P. 2005. Identification of the bovine α 1-acid glycoprotein in colostrum and milk. Vet. Res. 36: 735-746.
- Mikhailov, A.S. 2005. Study of the pH-dependent conformational changes in α1-acid glycoprotein using FRET. Ann. N.Y. Acad. Sci. 1048: 453-456.
- 9. Hazai, E., Visy, J., Fitos, I., Bikádi, Z. and Simonyi, M. 2006. Selective binding of coumarin enantiomers to human α 1-acid glycoprotein genetic variants. Bioorg. Med. Chem.14: 1959-1965.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

AGP-1/2/3/8 (G-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AGP-1 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.

Blocking peptide available for competition studies, sc-51023 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AGP-1/2/3/8 (G-18) is recommended for detection of AGP-1, AGP-2, AGP-3 and AGP-8 of mouse and, to a lesser extent, rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Molecular Weight of AGP-1/2/3/8: 24 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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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.