

AGP-1/2 (AGP-47): sc-59447

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.
- Lee, S.C., Chang, C.J., Lee, Y.M., Lei, H.Y., Lai, M.Y. and Chen, D.S. 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.
- 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.
- 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 α 1-acid glycoprotein using FRET. *Ann. N.Y. Acad. Sci.* 1048: 453-456.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: ORM1/ORM2 (human) mapping to 9q32.

SOURCE

AGP-1/2 (AGP-47) is a mouse monoclonal antibody raised against full length AGP-1/2 of human origin.

PRODUCT

Each vial contains 100 μ l ascites containing IgG₁ with < 0.1% sodium azide.

APPLICATIONS

AGP-1/2 (AGP-47) is recommended for detection of AGP-1 and AGP-2 of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:10000) and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:3000).

Suitable for use as control antibody for AGP-1/2 siRNA (h): sc-60133, AGP-1/2 shRNA Plasmid (h): sc-60133-SH and AGP-1/2 shRNA (h) Lentiviral Particles: sc-60133-V.

Molecular Weight of glycosylated AGP-1/2: 41-47 kDa.

Positive Controls: human plasma extract sc-364374.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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

PROTOCOLS

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