# AGP-1/2 (D-13): sc-51018



The Power to Question

## **BACKGROUND**

AGP ( $\alpha$ 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., et al. 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., et al. 1989. Molecular cloning of cDNAs corresponding to two genes of  $\alpha$ 1-acid glycoprotein and characterization of two alleles of AGP-1 in the mouse. DNA 8: 245-251.
- 3. Carter, K.C., et al. 1991. Differential expression of the mouse  $\alpha$ 1-acid glycoprotein genes (AGP-1 and AGP-2) during inflammation and aging. Biochim. Biophys. Acta 1089: 197-205.
- 4. Chang, C.J., et al. 1992. Structure and expression of mouse  $\alpha$ 1-acid glycoprotein gene-3 (AGP-3). DNA Cell Biol. 11: 315-320.
- 5. Fan, C., et al. 1995. Synergistic interaction between ORM1 and C3 types in disease associations. Exp. Clin. Immunogenet. 12: 92-95.
- Lin, D.B., et al. 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., et al. 2005. Identification of the bovine  $\alpha$ 1-acid glycoprotein in colostrum and milk. Vet. Res. 36: 735-746.
- 8. Mikhailov, A.S. 2005. Study of the pH-dependent conformational changes in  $\alpha$ 1-acid glycoprotein using FRET. Ann. N.Y. Acad. Sci. 1048: 453-456.
- 9. Hazai, E., et al. 2006. Selective binding of coumarin enantiomers to human  $\alpha 1\text{-acid}$  glycoprotein genetic variants. Bioorg. Med. Chem.14: 1959-1965.

## **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 for detailed protocols and support products.

#### **CHROMOSOMAL LOCATION**

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

### **SOURCE**

AGP-1/2 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AGP-1 of human origin.

#### **PRODUCT**

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

Blocking peptide available for competition studies, sc-51018 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## **APPLICATIONS**

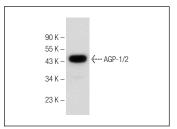
AGP-1/2 (D-13) is recommended for detection of AGP-1 and AGP-2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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 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.

## DATA



AGP-1/2 (D-13): sc-51018. Western blot analysis of AGP-1/2 in human plasma.

### **RESEARCH USE**

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

MONOS Satisfation Guaranteed

Try **AGP-1/2 (AGP-47):** sc-59447, our highly recommended monoclonal alternative to AGP-1/2 (D-13).