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ProductInformation

α_1-Acid Glycoprotein
human

Product Number **G 9885**
Storage Temperature 2-8 °C

Product Description
MW: 40,800 (sedimentation velocity and diffusion studies);[1] 33,000;[2] 40,000[3]
pI: 2.7 (phosphate buffer)[3]
Extinction Coefficient: $E^{1\%}$ = 8.93 (278 nm)[4]

The sequence of the polypeptide portion of α_1-acid glycoprotein has been described.[5] Human α_1-acid glycoprotein contains approximately 11-12% sialic acid, 13-17% neutral hexoses,12-15% hexosamine, and 0.7-1.5% fucose (total carbohydrate content is approximately 45%).[2,4] The carbohydrate structure has be described.[6]

Comparative data for chicken, human, porcine, rabbit and rat α_1-acid glycoproteins: amino acid composition, carbohydrate composition, molecular weights determined by sedimentation has been published. Chicken, human and rabbit proteins possess almost identical quantities of the various sugars. However, the rat protein contained about 50% less of the various sugars than the human protein.[1]

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
Human α_1-acid glycoprotein is soluble in water at 10 mg/ml, yielding a clear solution.

References
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3. Schmid, K., J. Am. Chem. Soc., **75**, 60 (1959).
4. The Plasma Proteins, 2nd ed., Putnam, F. W., ed., Academic Press (New York, NY: 1975).
5. Schmid, K., et al., Structure of 1 -acid Glycoprotein. The Complete Amino Acid Sequence, Multiple Amino Acid Substitutions, and Homology with the Immunoglobulins. Biochemistry, **12(14)**, 2711-2724 (1973) .
6. Hermentin, P., et al., The Mapping by High-pH Anion-exchange Chromatography with Pulsed Amperometric Detection and Capillary Electrophoresis of the Carbohydrate Moieties of Human Plasma Alpha 1-acid Glycoprotein. Anal. Biochem., **206(2)**, 419-429 (1992).

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