

Specification

Alcian Blue 8 GS (C.I. 74240)

A2124

Physical Description:	Solid
Product Code:	A2124
Product Name:	Alcian Blue 8 GS (C.I. 74240)
Specifications:	λ_{\max} . (100 % DMSO): 674 - 682 nm E 1 %/1 cm, λ_{\max} (100 % DMSO): min. 700 Loss on drying: max. 15 %
WGK:	2
Storage:	RT
Molecular Formula:	$C_{56}H_{68}Cl_4CuN_{16}S_4$
M:	approx. 1300 g/mol
CAS:	33864-99-2
EINECS:	278-333-8
CS:	32041600
Comment	<p>The staining of glycoproteins and glycosaminoglycans (GAG) with alcian blue is a good alternative to the more commonly used method with the periodic acid-Schiff's reagent (PAS). The alcian blue reagent is stable in solution, as well as the stained protein bands. Even glycoproteins with a high proportion of carbohydrates can be stained (2, 3). Stock solutions of alcian blue are prepared in ethanol (1, 5, 7) or acetic acid (ref. 2-4, 6; 0.1 - 3 % acetic acid). The concentration differs from author to author: 0.05 % (1), 0.1 % (4, 6), 0.3 % (7) and 1 % (2). The visualization of glycoproteins after cellulose acetate electrophoresis (2, 6) requires a staining for 5 - 15 minutes and after acrylamide disc electrophoresis of 4 hours. For the quantification of the stained GAGs, the alcian blue-GAG complexes can be "eluted" from the cellulose acetate stripes with DMSO and the absorption is measured at 678 nm (5).</p>

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Bibliography

(1)Wessler, E. (1968) *Anal. Biochem.* **26**, 439-444Analytical and preparative separation of acidic glycosaminoglycans by electrophoresis in barium acetate. (2)Wardi, A.H. & Allen, W.S. (1972) *Anal. Biochem.* **48**, 621-623Alcian blue staining of glycoproteins. (3)Wardi, A.H. & Michos, G.A. (1972) *Anal. Biochem.* **49**, 607-609Alcian blue staining of glycoproteins in acrylamide disc electrophoresis. (4)Hata, R. & Naga, Y. (1973) *Anal. Biochem.* **52**, 652-656A micro colorimetric determination of acidic glycosaminoglycans by two dimensional electrophoresis on a Cellulose acetate strip. (5)Newton, D.J. *et al.* (1974) *Anal. Biochem.* **62**, 268-273The estimation of acid glycosaminoglycan-Alcian blue complexes eluted from electrophoretic strips. (6)Kanwar, Y.S. & Farquhar, M.G. (1979) *Proc. Natl. Acad. Sci. USA* **76**, 4493-4497Isolation of glycosaminoglycans (heparan sulfate) from glomerular basement membranes. (7)Ilgaz, C. *et al.* (1999) *Biotechnic & Histochemistry* **74**, 57-63Double-staining of skeletons in a microwave.