



Product Information Sheet

A1286 Alcian Blue

Synonyms: Alcian Blue 8GX, Ingrain Blue 1, and C.I. 74240
CAS: 33864-99-2
Formula: $C_{56}H_{68}Cl_4CuN_{16}S_4$
Mol. Weight: 1298.86

Properties

Form: Powder
Appearance: Blue or Greenish-Black to Purple
Solubility: Soluble in Water
Application: Biological Stain, Phycology
Storage Temp: Room Temperature
Typical Working Concentration: Varies with Application, should be determined by end user

Application Notes

A widely used cationic dye used to stain acid mucopolysaccharides and glycosaminoglycans. The stained tissues are blue to bluish-green in color. Particularly useful in staining pectins present in plant cell walls. Commonly used to stain plant root mucilage (Abeysekera & McCully, 1993).

Can be used in the quantitative determination of acid and/or sulfated algal polysaccharides in an aqueous solution, or to differentiate sulfated and non-sulfated polysaccharides in algal tissues (Ramus, 1977; Parker & Diboll, 1966).

References

- Abeysekera R.M. and M. E. McCully (1993) The Epidermal Surface of the Maize Root Tip. I. Development in Normal Roots. *New Phytologist*, 125(2) pp. 413-429.
- Melissa A. Melan and Dean P. Whittier (1989) Characterization of Mucilage on the Proximal Cells of Young Gametophytes of *Botrychium dissectum* (Ophioglossaceae). *Amer. J. Bot.* 76(7): 1006-1014.
- Parker B.C. and A.G. Diboll (1966) Alcian Stains for Histochemical Localization of Acid and Sulfated Polysaccharides in Algae. *Phycologia*, 6(1), pp. 37-46.
- Pearse, A.G.E. (1968) Histochemistry theoretical and applied. 3rd ed. Vol. 1. Baltimore: Williams and Wilkins Co.
- Ramus J. (1977) Alcian Blue: A Quantitative Aqueous Assay for Algal Acid and Sulfated Polysaccharides. *Journal of Phycology* 13(4), pp. 345-348. DOI: 10.1111/j.1529-8817.1977.tb02939.x