Specification

Bromophenol Blue Sodium Salt for electrophoresis A3640

Physical Description:	Solid
Product Code:	A3640
Product Name:	Bromophenol Blue Sodium Salt for electrophoresis
Specifications:	Assay (photometr.): min. 90 % $\lambda_{max.}$ (pH 4.6): 590 - 595 nm Loss on drying: max. 5 % Transition interval: passes test
WGK:	1
Storage:	RT
Molecular Formula:	$C_{19}H_9Br_4NaO_5S$
M:	691.94 g/mol
CAS:	34725-61-6
EINECS:	252-170-2
CS:	29349990

Comment

Bromophenol blue (BPB) and xylene cyanol FF (XC) are the most widely used stains in gel electrophoresis for tracing the migration of samples on electrophoretic gels. Usually, both stains are added to the sample buffers (loading buffers; see our *ready-to-use* **loading buffers**) at concentrations of 0.05 % to 0.25 %. In the vertical polyacrylamide gel electrophoresis it may happen, that the gel is leaking or air bubbles may come up. If the gel is staind with 1 - 5 mg bromophenol blue, this may be detected much easier and earlier. In case that the stain will interfere with other applications (e. g. silver staining), a pre-run of the gel will remove bromophenol blue. It does not influence the migration of the samples. Add the solid stain before adding the catalyst (4). If DNA is dissolved in bidistilled water (pH 5.5 - 6.0) - not in TE buffer - both stains, as well bromophenol blue as xylene cyanol FF may change the migration rate during the electrophoresis run. The bands run faster than expected (5).In **denaturing** gels, the dye migrates with sizes like the following oligonucleotide\: **Polyacrylamide (%) Bromophenol blue Xylene cyanol** (according to ref. 1, 4)5 35 bases 130 bases6 26 bases 106 bases8 19 bases 75 bases10 12 bases 55 bases20 10 bases 28 bases

AppliChem GmbH
Ottoweg 4 • D-64291 Darmstadt • Phone +49 6151 9357 0 • Fax +49 6151 9357 11 • **info.de@itwreagents.com** • **www.itwreagents.com**
CEO Joan Roget • Commerzbank Darmstadt • Bank 508 800 50 • Account 0186989900 IBAN DE24 5088 0050 0186 9899 00 • Swiftcode DRESDEFF508 • Finanzamt Darmstadt 07 228 16476 • Register court Darmstadt HRB Nr. 7340

Specification

Bromophenol Blue Sodium Salt for electrophoresis A3640

Bibliography

(1)Maxam, A.M. & Gilbert. W. (1977) *Proc. Natl. Acad. Sci. USA* **74**, 560-564A new method for sequencing DNA. (2)Ogden, R.C. & Adams. D.A. (1987) *Methods Enzymol.* **152**, 61-87Electrophoresis in agarose and acrylamide gels. (2)Sambrook, J., Fritsch, E.F. & Maniatis, T. (1989) *Molecular Cloning*\: A Laboratory Manual, 2nd Edition, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York. (4)Cathey, J.C. *et al*. (1997) *BioTechniques* **22**, 222Incorporation of bromophenol blue enhances visibility of polyacrylamide gels. (5)Shieh, B. *et al*. (1998) *BioTechniques* **24**, 60-64Stain-induced denaturation of water-solubilized DNA. (6)Ausubel, F.A., Brent, R., Kingston, R.E., Moore, D.D., Seidman, J.G., Smith, J.A. & Struhl, K. (eds.) 2000. *Currrent Protocols in Molecular Biology*. page 7.6.5 Suppl. 16 John Wiley & Sons, New York.

AppliChem GmbH
Ottoweg 4 • D-64291 Darmstadt • Phone +49 6151 9357 0 • Fax +49 6151 9357 11 • **info.de@itwreagents.com** • **www.itwreagents.com**
CEO Joan Roget • Commerzbank Darmstadt • Bank 508 800 50 • Account 0186989900 IBAN DE24 5088 0050 0186 9899 00 • Swiftcode DRESDEFF508 • Finanzamt Darmstadt 07 228 16476 • Register court Darmstadt HRB Nr. 7340