


Specification

Cesium Chloride 99.9 % *BioChemica*

A1126

Solubility:	1800 g/L (H ₂ O)
Physical Description:	Solid
Product Code:	A1126
Product Name:	Cesium Chloride 99.9 % <i>BioChemica</i>
Specifications:	Assay: min. 99.9 % Al: max. 0.0005 % Ba: max. 0.001 % Ca: max. 0.0005 % Fe: max. 0.0005 % K: max. 0.002 % Li: max. 0.0005 % Na: max. 0.005 % Cr: max. 0.0005 %
Hazard pictograms	
WGK:	1
Storage:	RT
Signal Word:	Attention
GHS Symbols:	GHS08
H Phrases:	H361
P Phrases:	P201 P261 P280 P308

AppliChem GmbH

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Specification

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	P310
Molecular Formula:	CsCl
M:	168.36 g/mol
CAS:	7647-17-8
EINECS:	231-600-2
CS:	28273985
Comment <p>In reference 1, the isopycnic cesium chloride (CsCl) gradient centrifugation is described, while reference 2 gives a protocol for the isolation of plasmid DNA with the discontinuous gradient centrifugation in a preparative ultracentrifuge in only 20 minutes at 90,000 rpm. Unlike reference 1 describes, the quantity of CsCl for the purification of 'normal' plasmid DNA can be reduced to 0.94 g/ml CsCl for the first gradient and to 0.85 g/ml CsCl for the second gradient. For the first gradient, crystalline CsCl is added to the DNA solution and for the second gradient a solution of 0.85 g/ml CsCl is used. This solution has to be filtered. Another improvement is recommended for the removal of ethidium bromide: Extract the DNA/CsCl/ethidium bromide containing solution with NaCl-saturated isopropanol, instead of the CsCl-saturated isopropanol for saving money! During extraction, an aqueous and an organic phase (upper phase containing the isopropanol) is formed. If non-salt-saturated isopropanol is used, CsCl will precipitate from the DNA-containing solution. The inclusion of another DNA precipitation step of the supernatant from the first precipitation, the yield of plasmid DNA could be increased several fold (3).</p>	
Bibliography <p>(1)Miller, H. (1987) <i>Methods Enzymol.</i> 152, 145-179Practical aspects on the preparation of phage and plasmid DNA. (2)Dorin, M. & Bornecque, C.A. (1995) <i>BioTechniques</i> 18, 90-92Rapid separation of plasmid DNA by discontinuous gradient centrifugation. (3)Hildeman, D.A. & Muller, D. (1997) <i>BioTechniques</i> 22, 878-879Improved plasmid DNA yields by removal of CsCl during ethanol precipitation.</p>	

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