

Specification

X-Gal BioChemica

A1007

Physical Description:	Solid
Product Code:	A1007
Product Name:	X-Gal BioChemica
Specifications:	Assay (HPLC): min. 99 % α 20°C/D; 1 %, DMF (50 %): -62° ± 2° Water (K.F.): max. 1 %
WGK:	1
Storage:	-20°C protected from light
Molecular Formula:	C ₁₄ H ₁₅ BrClNO ₆
M:	408.63 g/mol
CAS:	7240-90-6
EINECS:	230-640-8
CS:	29349990
Comment	<p>X-Gal is a substrate of the β-galactosidase. It is used for the identification of <i>lacZ</i>⁺ bacteria, especially for the assay of β-galactosidase, expressed from recombinant vectors. β-Galactosidase cleaves the substrate and releases 5-Bromo-4-chloro-3-indoxyl (X). The indoxyl will be oxidized to the insoluble indigo. Prepare a stock solution by dissolving 20 mg/ml X-Gal in dimethylformamide. Store this solution at -20°C protected from light. For the use in LB/Ampicillin plates the stock solution is diluted 1 \: 1000 (final concentration 20 μg/ml) or 1 \: 500 (final concentration 40 μg/ml). Make sure, that the medium is cooled down to approx. 50°C. The quantity of X-Gal can be reduced, if the X-Gal-solution in DMF is sprayed on the agar plates (with grown bacterial colonies! ref. 3).</p>
Bibliography	<p>(1)Lojda, Z. <i>et al.</i> (1973) <i>Histochemie</i> 34, 361-369 Synthetic substrates in the histochemical demonstration of intestinal disaccharides. (2)Lin, W.-c. <i>et al.</i> (1990) <i>Cancer Res.</i> 50, 2808-2817 Bacterial <i>lacZ</i> Gene as a highly sensitive marker to detect micrometastasis formation during tumor progression. (3)Maas, S. (1999) <i>BioTechniques</i> 27, 1126-1128 Efficient and rapid procedure for the blue-white selection of recombinant bacterial clones.</p>