

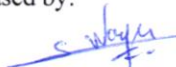
## CERTIFICATE OF ANALYSIS

Product : **5-BROMO-4-CHLORO-3-INDOLYL- $\beta$ -D-GALACTOPYRANOSIDE (X-GAL)**  
Product number : X1402  
Batchnumber : 019181  
Date of analysis : 13-06-2024  
Expiry date : 30-06-2027  
  
Packaging and storage : store dry at -20 °C, protect from light

	SPECIFICATION	RESULT	UNITS	REMARKS
Appearance	white to off-white crystalline powder	white powder		
Identification	conform	complies		IR-spectrum
Appearance of solution	clear and colourless	complies		2% in DMF
Specific optical rotation	-63.0 - -60.0	-61.60	°	
Water content	$\leq 1.0$	0.16	%	Karl Fischer
Assay	$\geq 99.0$	99.36	%	HPLC

This certificate of analysis is conform the results of the manufacturer.

Conclusion: approved  
Released by:



S. Bayat, MSc, pharmacist  
Department of Quality Control Duchefa B.V.

Date: 31-03-2025

The buyer is responsible to test each batch to ensure the product is suitable for their specific purpose.

Duchefa Biochemie B.V.