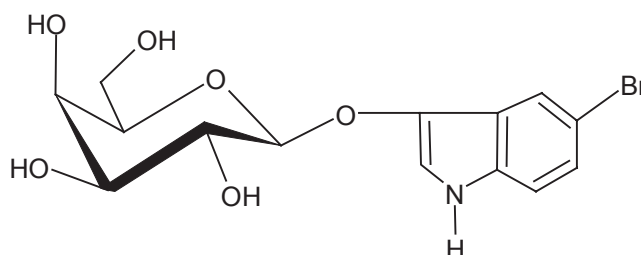




INALCO PHARMACEUTICALS
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DATA SHEET
enzyme substrate

5-BROMO-3-INDOLYL- β -D-GALACTOPYRANOSIDE
(BLUO-GAL)



Inalco code	1758-0750
C.A.S. R.N.	[97753-82-7]
Applications	Substrate for β -Galactosidase that is converted, by the enzyme, into an insoluble indigo-blue chromophore, darker than the one released by X-Gal. In histological applications, Bluo-Gal produces a precipitate in the form of fine birefringent crystals which, upon microscopic examination under polarized light, emit a strong signal consisting of yellow reflected light, resulting in greatly enhanced sensitivity and better morphological resolution as compared with X-Gal. It is also used in Lac gene detection systems, in immunoblotting and immunocytochemical assays.
Formula	$C_{14}H_{16}BrNO_6$
Molecular Weight	374.2
Appearance	White or almost white powder
Purity (TLC)	$\geq 98\%$
Specific Rotation	$[\alpha]_D^{20} -34^\circ \pm 2$ (c=1 in DMF/H ₂ O 1:1)
Water Content (K.F.)	$\leq 1\%$
Solubility	Clear (2% in DMF)
¹ H-NMR	Conforming to the structure
Storage	Store at 4° C; protect from light and humidity. For long term storage: - 20° C.
Toxicity	Toxicity unknown; avoid exposure.
References:	Histochemistry, 102(6), 477-81 (1994) Markaryan, A.N., et al., Bioorg. Khim., 13(2), 263-5 (1987), Russian Laton, R.B., et al., Biopolim Klekta 5 (4), 106-108 (1989), Russian