

MUG

A fluorogenic substrate for detecting *E. coli*

MUG is the abbreviation of 4-Methylumbelliferyl b-D-Glucopyranosiduronic acid and known as a fluorogenic substrate for detecting β -Glucuronidase activity. This enzyme is marker enzyme for identifying *E. coli*. So, MUG is useful for the identifying *E. coli* contamination in clinical samples, food industry and drinking water treatment.

Cat. Number	ASC-1019
CAS Number	881005-91-0
Molecular Weight	388.32 g/mol
Molecular Formula	$C_{16}H_{16}O_9 \cdot 2H_2O$
Storage Temperature	+4 °C
Form and Color	Crystals to crystalline Powder / Colorless to white
Purity (HPLC)	$\geq 99\%$
Specific Optical Rotation $[\alpha]_D$ (C= 0.25 in water / 60 °C)	-107 to -103
Solution Appearance (1% in water / 60 °C)	Clear / Colorless
Water Content	8 – 10.2 %
Free 4-MU	≤ 25 ppm
¹ H-NMR Spectrum	Corresponds to assigned spectrum
Synonym	4-Methylumbelliferyl b-D-glucuronide dihydrate 4-Methylumbelliferyl b-D-Glucopyranosiduronic acid