



For Research Use Only

TokyoGreen[®]-βGlcU(Na)

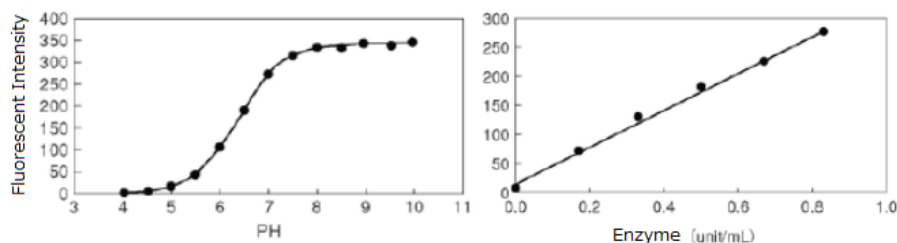
Table 1. Product information

Code no.	Product	Contents	Storage	Stability
SK4003-01	TokyoGreen [®] -βGlcU(Na)	1 mg (in DMSO 0.38 mL)	Freeze-preservation, desiccate and protect from light.	1 year (unopened)

TokyoGreen[®]-βGlcU(Na) is permeable through the cell membrane and is fluorescent substrate [9-(4-methoxy-2-methylphenyl)-6-oxo-6Hxanthen-3-yl-β-D-glucuronide, sodium salt] for detecting β-glucuronidase. Non-fluorescent TokyoGreen[®]-βGlcU(Na) is hydrolyzed by the β-glucosidase, and generates bright fluorescent TokyoGreen[®].

1. About TokyoGreen[®]-βGlcU(Na)

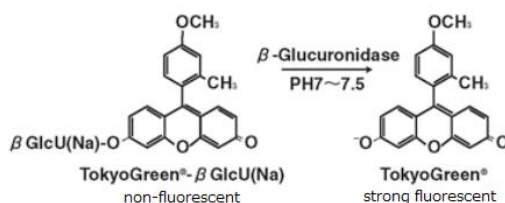
- TokyoGreen[®]-βGlcU(Na) is recently-developed fluorescent chemical detecting the activity of β-glucuronidase with high sensitivity.
- TokyoGreen[®], generated by hydrolysis of TokyoGreen[®]-βGlcU(Na), has strong fluorescence under the wide range of neutral and basic pH condition (left figure).
- Fluorescent intensity in in proportional to the activity of β-glucuronidase (right figure).



Fluorescent intensity (Ex. 492 nm, Em. 510 nm) was measured 500 sec after adding β-Glucuronidase (*Escherichia coli*, Type IX-A) in Phosphate Buffer (pH7.0) containing TokyoGreen[®]-βGlcU(Na) 5 μM.

2. Principle of the measurement

Non-fluorescent TokyoGreen[®]-βGlcU(Na) is hydrolyzed by the β-glucuronidase, and generates bright fluorescent TokyoGreen[®]. TokyoGreen[®] has bright green fluorescence (510 nm) when it is irradiated by the 490 nm excitation light.



3. Contents

TokyoGreen[®]-βGlcU(Na) 1mg (5 mM in DMSO 0.38mL)

C₂₇H₂₃NaO₁₀ Mw: 530.46

4. Reference

1. Y. Urano, M. Kamiya, K. Kanda, T. Ueno, K. Hirose, T. Nagano: *J. Am. Chem. Soc.* 127, 4888-4894 (2005).