Fluorescein di(β-D-galactopyranoside) is a fluorogenic substrate for β-galactosidase ($\lambda_{ex}$=485 nm, $\lambda_{em}$=535 nm).

In Vitro
The fluorescence produced by Fluorescein di(β-D-galactopyranoside) increases in a time- and dose-dependent manner. The level of fluorescence produced by the double-substrate method is much lower than that by the Fluorescein di(β-D-galactopyranoside) method. Results show that the fluorescein produced by Fluorescein di(β-D-galactopyranoside) in Hs68 cells is proportional to the number of passages\textsuperscript{[1]}.  

PROTOCOL

Cell Assay \textsuperscript{[1]}

The cells (5×10\textsuperscript{3} cells per well) are cultured in a 96-well plate overnight for attachment, washed, and then fixed in solutions. An aliquot (100 µL) of the reaction buffer (i.e., the staining solution without X-Gal) is added into each well. Then, 10 µL of 2 mM Fluorescein di(β-D-galactopyranoside) is added per well and the plate is incubated in the dark at 37°C for 24 h without CO\textsubscript{2} supply. After incubation at 37°C for 24 h, 100 µL of the supernatant is transferred to a 96-well plate for fluorescent measurement in triplicates. The fluorescein fluorescence is measured using a fluorometer with an excitation at 485 nm and an emission at 535 nm\textsuperscript{[1]}.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES