?-galactosidase activity assay

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works for me

dx.doi.org/10.17504/protocols.io.qabdsan

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EXTERNAL LINK

https://doi.org/10.1371/journal.pone.0200688

THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION


DOI

dx.doi.org/10.17504/protocols.io.qabdsan

EXTERNAL LINK

https://doi.org/10.1371/journal.pone.0200688

PROTOCOL CITATION

Yuan Yao 2018. ?-galactosidase activity assay. protocols.io

https://dx.doi.org/10.17504/protocols.io.qabdsan

MANUSCRIPT CITATION

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KEYWORDS

?galactosidase activity assay

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CREATED

May 22, 2018

LAST MODIFIED

Jul 17, 2018

PROTOCOL INTEGER ID

12323
Exponentially growing cells (1 ml) at 37°C in ABTGcasa medium were collected at OD450=0.1, 0.2, 0.3, 0.4 and 0.5.

1. Mix with cold toluene (0.1 ml) and kept on ice immediately.

2. 0.2 ml toluene-treated sample was added to 1 ml Z buffer (40 mM NaH2PO4, 60 mM Na2HPO4, 10 mM KCl, 1 mM MgSO4 and 50 mM β-mercaptoethanol, pH 7.0) containing 0.66 mg/ml o-nitrophenyl-β-D-galactopyranoside.

3. The reaction was performed at 30°C until the color changed to yellow.

4. Stop by addition of 0.5 ml 1 M Na2CO3.

5. The absorbance at OD420 was measured.

6. The β-galactosidase activity was calculated by 1000×OD420/reaction time (min) ×OD450×0.2 ml.