

LUMI-GAL[®] 530 CHEMILUMINESCENT SUBSTRATE

Features

Excellent Sensitivity

10^{-19} moles β -galactosidase can be detected.

Application

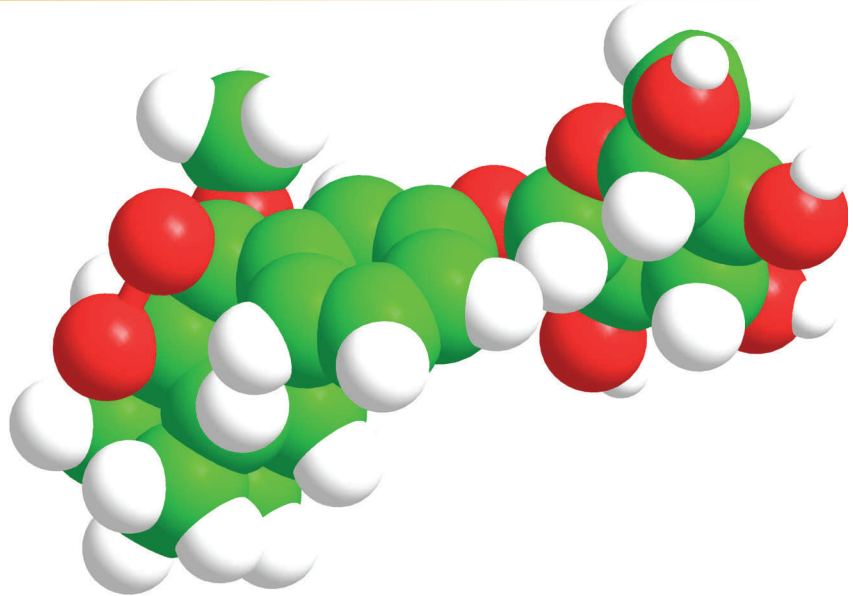
Useful for measuring the expression of reporter genes in cell based assays.

Sustained Luminescence

With low concentrations of enzyme, the light intensity remains constant for several hours.

Linear Calibration Curves

The luminescence intensity at any time point is a direct measure of the concentration of the enzyme.

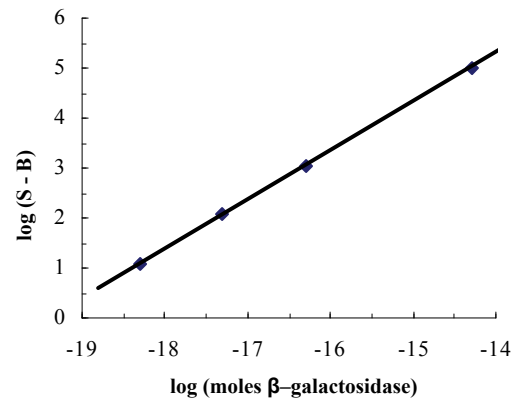


Lumi-Gal 530 is a ready-to-use formulation containing Lumigen GPD (4-methoxy-4-(3- β -D-galactosidephenyl)spiro[1,2-dioxetane-3,2'-adamantane]) for the one-step chemiluminescent detection of β -galactosidase. The solution contains the dioxetane, $MgCl_2$, cetyltrimethylammonium bromide and a fluorescent enhancer in 2-amino-2-methyl-1-propanol buffer (pH 9.6). A proprietary enhancer and stabilizing agent promote the efficient operation of β -galactosidase at this pH. This formulation is particularly useful for the chemiluminescent detection of β -galactosidase conjugates in solution.

Addition of Lumi-Gal 530 to a tube, bead or microtiter well at 37°C containing the β -galactosidase results in chemiluminescence which increases with time and reaches a peak after about 35 minutes. With low concentrations of enzyme, the light intensity remains constant for more than an hour. The luminescence intensity at any time point is a direct measure of the concentration of enzyme.

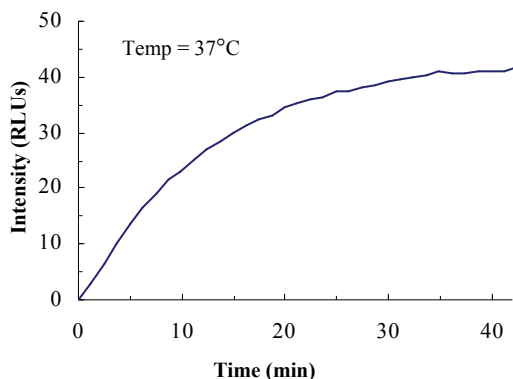
EXCELLENT SENSITIVITY

10^{-19} moles of β -galactosidase can be detected with Lumi-Gal 530 in homogeneous solution assays. Linear calibration curves can be constructed at any fixed time point and initial rates are also proportional to amount of enzyme.



LUMI-GAL 530 CHEMILUMINESCENT SUBSTRATE

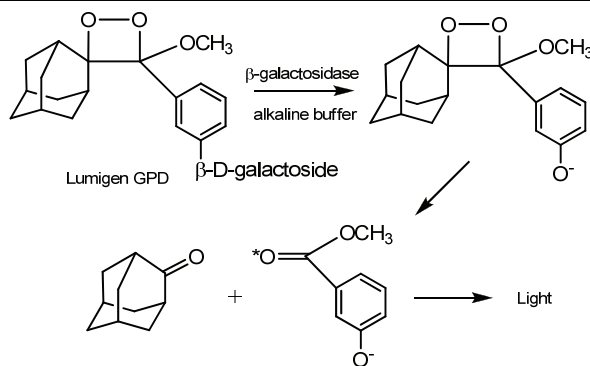
KINETIC PROFILE



Maximum light intensity is reached within 40 minutes with incubation at 37°C. Light emission is sustained for several hours. Shorter incubation times produce linear calibration curves, but with a lower overall light level.

REACTION MECHANISM

Lumi-Gal 530 is a stable one-component formulation that gives intense emission in the presence of β -galactosidase.



PRODUCT SPECIFICATIONS

Enzyme	β -galactosidase
Application	ELISA
Analytical Sensitivity	10^{-19} moles β -galactosidase
Storage Conditions	-20° C; Store in amber bottle
Stability	2 Years at -20° C
Working Solution	1 Part, Ready to Use Solution

ORDERING INFORMATION

Description	Cat. No.
Lumi-Gal 530 (100 mL)	G-501
Lumi-Gal 530 (125 mL)	G-5000

CONTACT INFORMATION



22900 West Eight Mile Road
Southfield, Michigan 48033
Tel: 248.351.5600
Fax: 248.351.0518
Email: marketing@lumigen.com

Visit www.lumigen.com for more information

Lumi-Gal 530