LT042

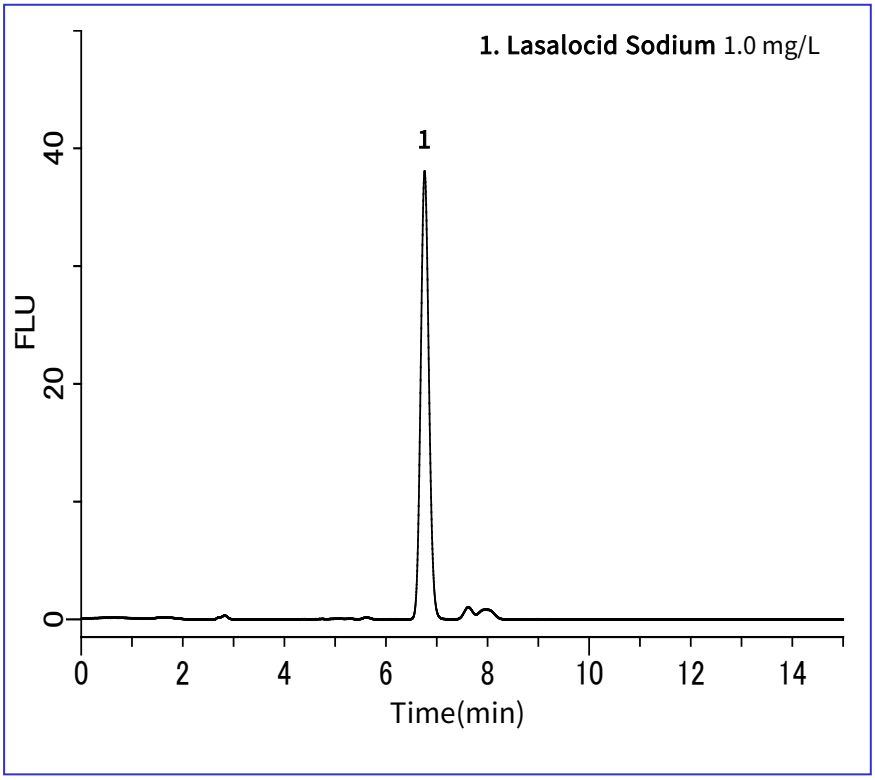
GL Sciences Inc.

Analysis of Polyether Antibiotics - Second Report

This year, we developed an analytical method for lasalocid sodium, a polyether antibiotic. In a previous report, we introduced a simultaneous analysis of polyether-based antibiotics using a post-column HPLC method. These compounds are considered difficult to analyze by post-column methods. However, unlike other polyether antibiotics, lasalocid is a compound with native fluorescent that can be readily measured using a fluorescence detector. In this report, we analyzed the results according to the method described in the "Feed Analysis Standards" to obtain excellent results.

(K. Suzuki)

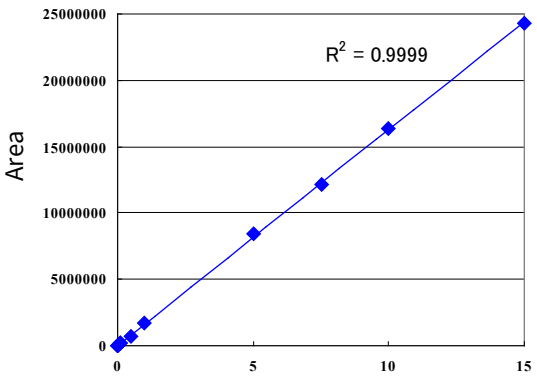
Example: Measurement of standard



HPLC conditions

Column	:Inertsil ODS-SP (5 µm, 250 x 4.6 mm I.D.)
Eluent	: A) CH_3OH B) 20 mM phosphate buffer A/B = 90/10 v/v, 1.0mL/min
Temperature	: 40 ˚C
Detector	:FL Ex 310 nm Em 420 nm
Injection volume	:20 µL

*Phosphate buffer: Dissolve 2.72 g of potassium dihydrogen phosphate in 1 L of ultrapure water, and adjust the pH to 3.0 with phosphoric acid.



Calibration curve

GL Sciences

Measurement example

Example of pretreatment

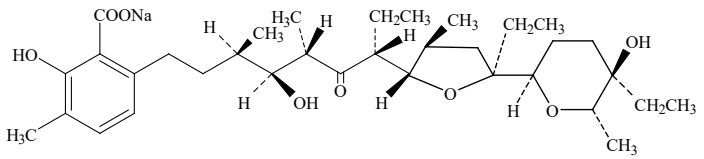
Feed
- 5.0 g
- Grind

Extraction
- Methanol 100 mL
- Stir for 30 min.

Filtration
- FILTRATION
- Dilute the filtrate to 100 mL. Filter through a 0.45 µm chromatography disk.

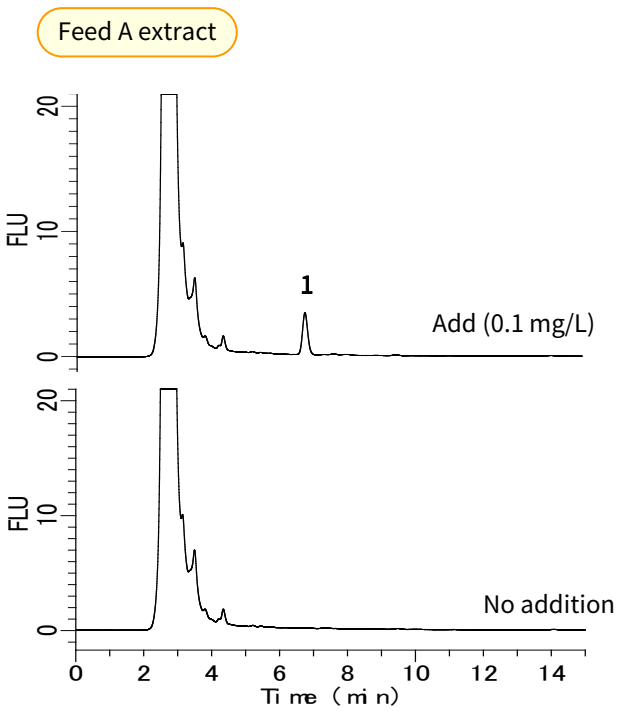
HPLC

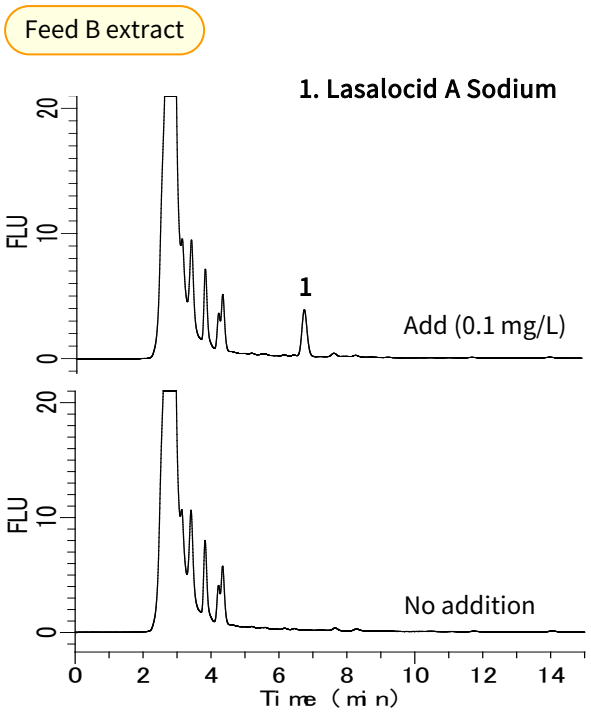
Structural formula



Lasalocid Sodium

Structures are created using Chemistry 4-D Draw which is provided by ChemInnovation Software, Inc.





GL Sciences Inc. Japan
22-1 Nishishinjuku 6-chome
Shinjuku-ku, Tokyo
163-1130, Japan

Phone: +81-3-5323-6620
Fax: +81-3-5323-6621
Email: world@gls.co.jp
Web: www.glsciences.com

GL Sciences Inc. USA
4733 Torrance Blvd. Suite 255
Torrance, CA 90503
USA

Phone: +1-310-265-4424
Fax: +1-310-265-4425
Email: info@glsciencesinc.com
Web: www.glsciencesinc.com

GL Sciences B.V.
Dillenburgstraat 7C
5652AM, Eindhoven
The Netherlands

Phone: +31-40-254-9531
Email: info@glsciences.eu
Web: www.glsciences.eu

GL Sciences (Shanghai) Limited
Tower B, Room 2003
Far East International Plaza
No.317 Xianxia Road, Changning District
Shanghai, China 200051

Phone: +86-21-62782272
Email: contact@glsciences.com.cn
Web: www.glsciences.com.cn

GL Sciences

International Distributors

Visit our Website at www.glsciences.com/distributors