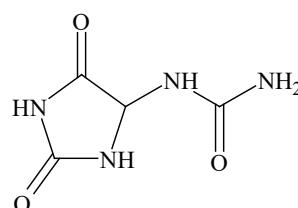


# Analysis of Allantoin in Cosmetics Using HILIC HPLC

Allantoin is a widely used in products such as pharmaceuticals and cosmetics. Due to its strong water solubility, reversed-phase HPLC using columns such as ODS has little retention, and the effects of ion pairs make analysis difficult. In this application, hydrophilic interactions (HILIC mode) was used to obtain excellent assay results.

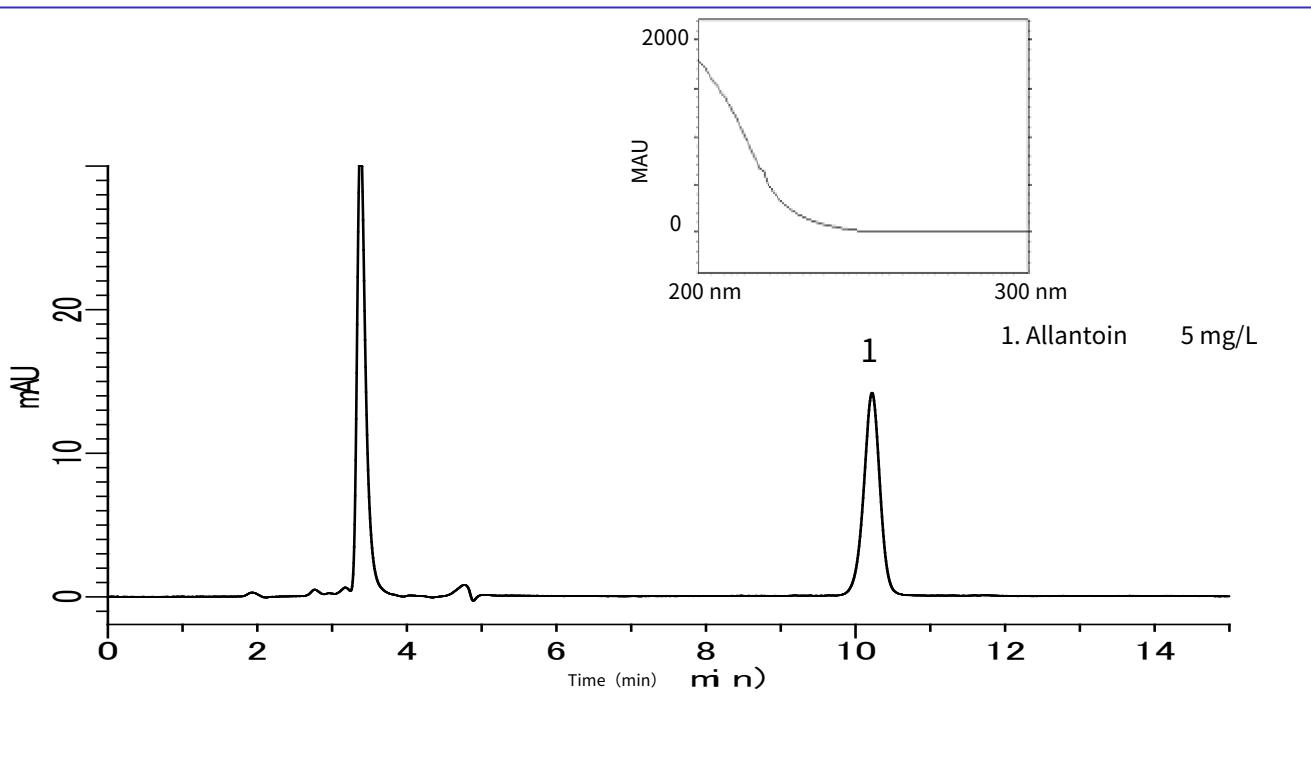
(K.Suzuki)

Structural formula



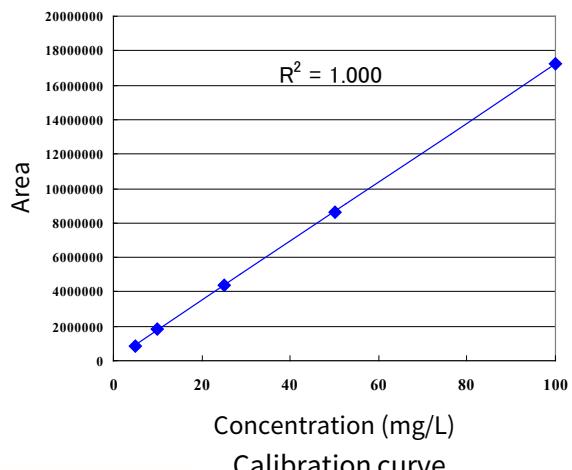
Structures are created using Chemistry 4-D Draw which is provided by ChemInnovation Software, Inc.

## Example: Measurement of standard



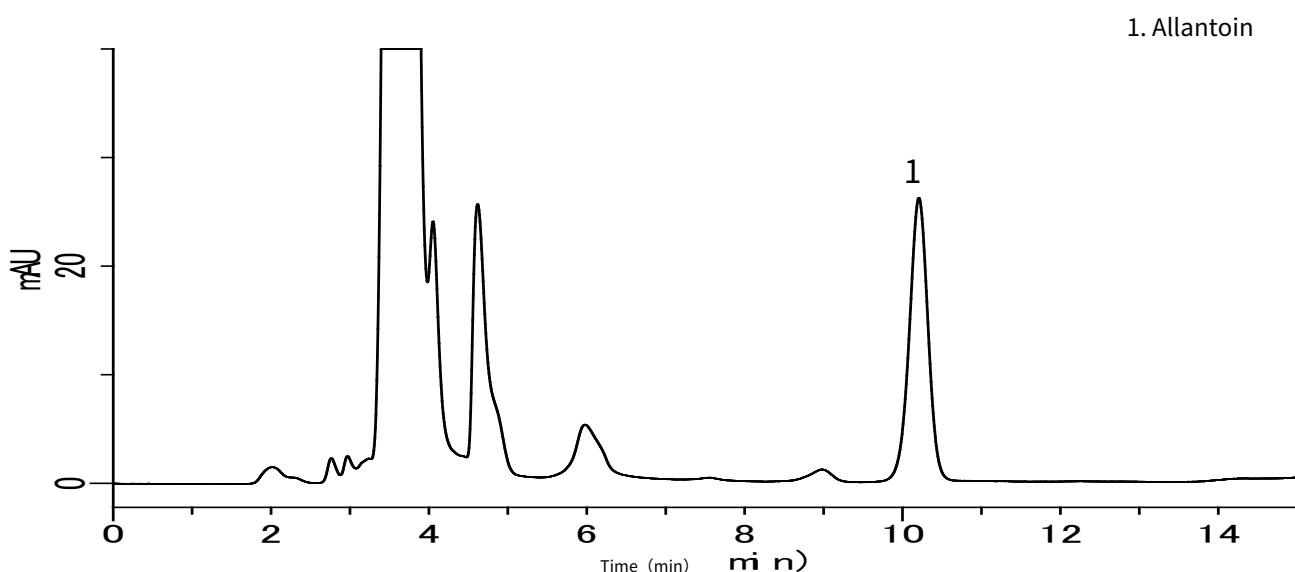
### HPLC conditions

Column	: Inertsil HILIC (5 µm, 250 x 3.0 mm I.D.)
Eluent	: A) CH <sub>3</sub> CN B) H <sub>2</sub> O A/B = 95/5, v/v (gradient mixer)
Flow rate	: 0.4 mL/min
Column temperature	: 40 °C
Detected	: PDA 210 nm
Injection volume	: 20 µL



## Examples of analysis of cosmetic solutions

The assay was performed by filtering the cosmetic solution through a 0.45 µm filter and diluting the solution 10-fold with acetonitrile.



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**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](mailto:world@gls.co.jp)  
Web: [www.glsciences.com](http://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](mailto:info@glsciencesinc.com)  
Web: [www.glsciencesinc.com](http://www.glsciencesinc.com)

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

Phone: +31-40-254-9531  
Email: [info@glsciences.eu](mailto:info@glsciences.eu)  
Web: [www.glsciences.eu](http://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](mailto:contact@glsciences.com.cn)  
Web: [www.glsciences.com.cn](http://www.glsciences.com.cn)