



Certificate of analysis

Batch: 130732097
Article: 86292 Angustifoline
Manufacturing date: 05/2022
Expiry date: 11/2024

Test	Unit	Limit	Testresult
Appearance, SOP 100005		powder	Conform
Color, SOP 100006		white-faint yellow	Conform
Identification (HPLC-HR/MS), SOP 204125		Conform	Conform
Identification (UV spectrum from HPLC-DAD analysis) according to specification, SOP 204311		Conform	Conform
Identification (1H-NMR-spectroscopy), (outsourced), SOP 206010		Conform	Conform
Identification (13C-NMR-spectroscopy), (outsourced), SOP 206020		Conform	Conform
Peakpurity, (HPLC), SOP 401367		Conform	Conform
Angustifoline (HPLC), method 1 (% AU), SOP 442357	%	> = 90.00	100.00

Further information:

Shelf life/stability: The stated expiration date applies when the reference substance is stored in the original unopened container within the specified temperature range. PhytoLab does not guarantee the stability of the reference substance once the vial has been opened.

Long-term storage and handling: the reference standard should be stored in the original unopened vial, protected against light and humidity in an airtight container, within the temperature range given on the label and accompanying data sheet. If stored below room temperature, the vial should be warmed up to room temperature in a desiccator before it is opened in order to avoid condensation of humidity. The user assumes responsibility for deciding how previously opened reference standard vials should be used and the user must ensure that the contents of opened vials are still suitable for their intended use.

Exact weight: the exact weight of each vial is given on the label of the inner vial to two decimal places. This information may be used to produce stock solutions of a known concentration without having to weigh in the reference substance again. If used for this purpose, the content of the vial

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must be quantitatively transferred to a volumetric flask and filled up to the required level. Please note that PhytoLab is unable to guarantee the stability of the reference standard in solution.

Intended use: this reference standard is solely intended for laboratory analytical purposes, research & development, and scientific teaching and training purposes. It may not be used for any other purpose and particularly not for use in, or the production of, food, animal feed, human or veterinary drugs, cosmetics, medicinal products or diagnostic agents, including in-vitro diagnostic agents. PhytoLab is unable to guarantee the suitability of this reference standard for any particular application other than its qualitative and quantitative use in chromatography and identification testing.

Further information about this reference standard can be found on the accompanying data sheet or in our webshop. Spectral and chromatographic data, and a description of the applied chromatographic method, are provided in the attachments to this COA. A detailed explanation of all data given on the COA can be found in the guide that is available from the download area in our webshop, where you can also download all of the safety data sheets.

Vestenbergsgreuth, 17.11.22

Dr. Jan Glaser
Manager Reference Substances



PhytoLab

SAFEGUARDING BOTANICAL QUALITY.

Product Data Sheet

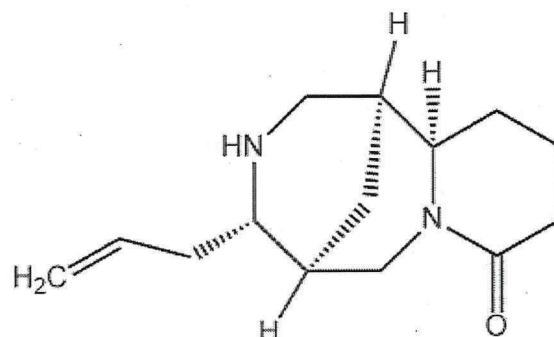
Angustifoline

Product #: 86292

Physicochemical Data

CAS #: 550-43-6
Molecular formula: C₁₄H₂₂N₂O
Molecular weight [g/mol]: 234.34
Synonyms: Jamaicensine

Substance class: Nitrogen-containing Compounds
Subgroup 1: Alkaloids
Subgroup 2: Pyridine, Pyrazine, Piperidine, Pyrrolidine, Quinolizidine alkaloids
Subgroup 3: Lupin alkaloids
Solubility: soluble in methanol and water. Please note that this solubility information is based on in-house experience or taken from published data. It is not meant to guarantee solubility up to a specific concentration, nor does it guarantee stability of the reference substance in solution.



Additional Information

Source: botanical origin

Long-term storage conditions: < -15 °C

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Proof of Quality for Markers

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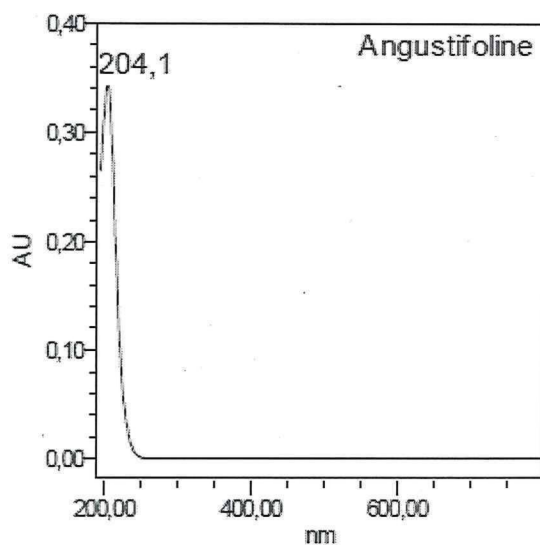
Supplements

Angustifoline
Product # 86292

Batch # 19272

Identity tests:

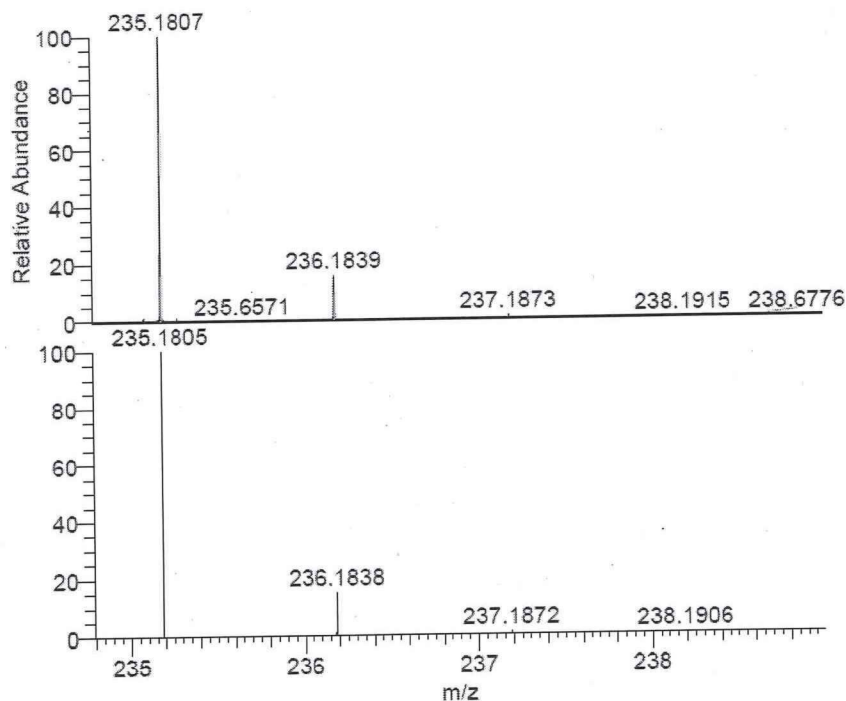
UV spectrum (derived from HPLC/PDA)





MS spectrum (ESI)

Detection: positive mode (compared with predicted spectrum)



NL:
3.65E7
210527_032#684 RT: 7.44
AV: 1 SB: 160 7.72-8.47 ,
10.12-11.16 T: FTMS {1,1} +
p ESI Full ms
[100.00-1500.00]

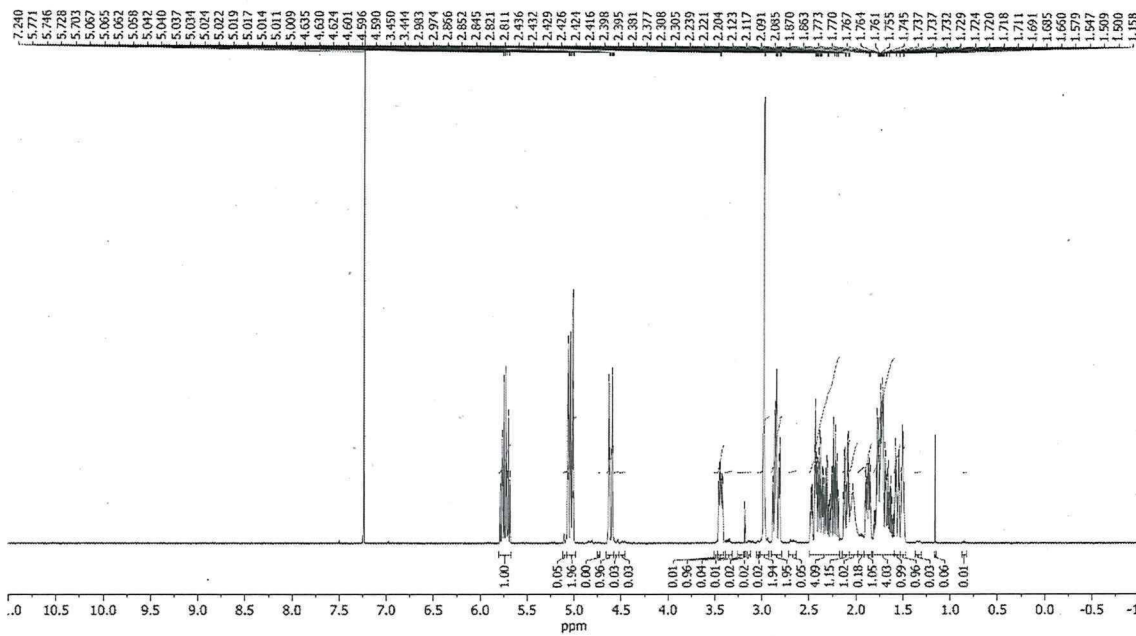
NL:
8.50E5
C14H23N2O:
C14H23N2O1
pa Chrg 1

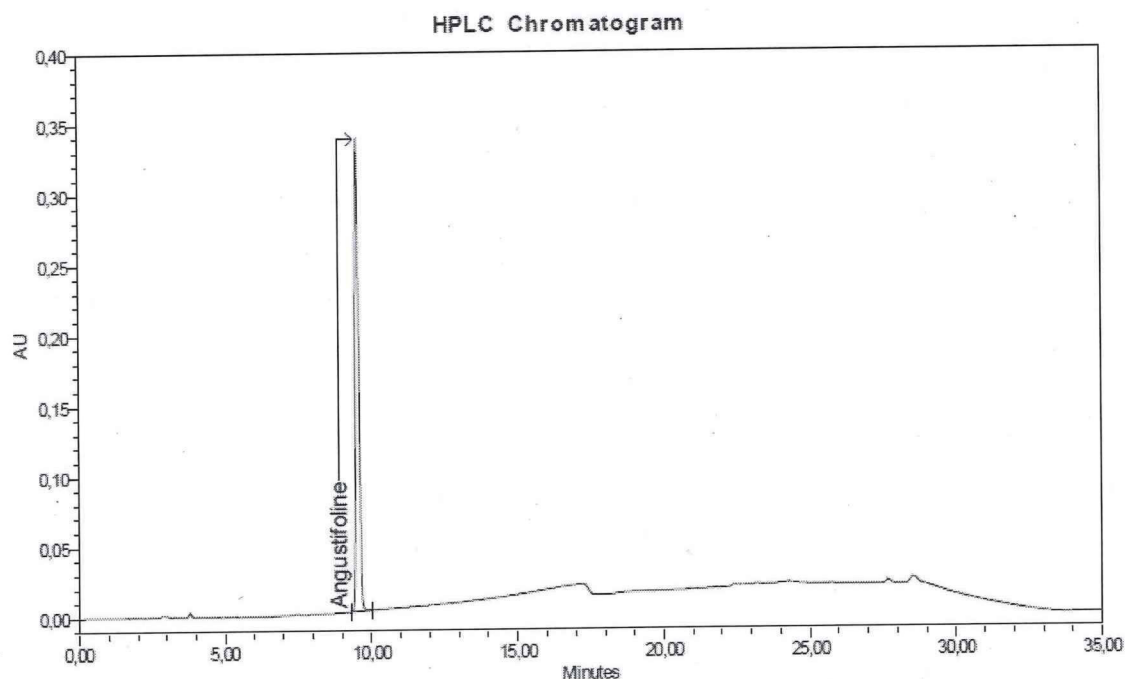
NMR spectra

^1H -NMR

PhytoLab GmbH & Co. KG
Angustifolin, Charge: 19272,
11.0 mg ad 0.7 ml CDCl_3

400 MHz ^1H -NMR, Agilent MR400



Chromatographic purity:


Peak Results

	Name	RT	Area	% Area
1	Angustifoline	9,548	2580154	100,00
Sum				100,00

Analytical conditions

Column: Synergie Polar RP 80A, 250 x 4.6 mm, 4 µm
 Mobile Phase: eluent A: 0.02M KH₂PO₄ pH3.0 (H₃PO₄)
 eluent B: 70% CH₃CN
 Mode: gradient

Time [min]	Eluent A [%]	Eluent B [%]
0	90	10
20	10	90
25	10	90
27	90	10
35	90	10

Flow: 0.8 ml/min
 Injection Volume: 20 µl
 Column Temperature: 30 °C
 Sample concentration: approx. 5.4 mg/100 ml
 Sample preparation: dissolved in CH₃CN/eluent A (10/90 V/V)
 Detection: UV, 202 nm
 Special note: -

Please note: Values on the certificate of analysis may vary as these are average values of at least six injections while above chromatogram and report is only one example. Non-integrated peaks originate from the blank injection.