Certificate of Analysis

ISO Guide 34 Reference Material

Product Identification

Article Code: DRE-C10968500
Article Name: Carbamazepin
Formula: C15H12N2O
Mol. Weight: 236.27
CAS No.: 298-46-4

Lot Number: G171923
Expiry Date: 03.03.2023
Storage Temperature: 20°C ± 4°C

Storage and handling: The RM should be stored in the original sealed bottle at the temperature given above. After use the bottle should be tightly closed and protected from moisture

Purity: 99.52% (g/g)

Expanded Uncertainty U= 0.90% (g/g)

The uncertainty of this standard is calculated in accordance with the ISO Guide 34 and EURACHEM/CITAC Guide - Quantifying Uncertainty in Analytical Measurement, Second Edition. The expanded uncertainty is U(exp) = u(RM) x k, where k is the coverage factor at the 95% confidence level (k=2). Uncertainty u(RM) is based on the combination of the uncertainties associated with each individual operation involved in the analysis of the product: $u(RM) = \sqrt{u(char)^2 + u(bb)^2 + u(lts)^2 + u(sts)^2}$; u(char) is the uncertainty of characterisation; u(bb) uncertainty of homogeneity test; u(lts) uncertainty of stability test long-term; u(sts) uncertainty of stability test short-term. u(lts) and u(sts) are not included in the calculation as the stability statement is based on real evidence opposed to simulation.
Minimum sample: 1 mg is recommended as the minimal sample amount. If less material is used, it is recommended to increase the certified uncertainty by a factor of two for half sample and a factor of four for a quarter of sample.
Intended use: Use this RM as calibrant for chromatography or any other analytical technique.

Analytical Data

Traceability of chromatography: To the International System of Units (SI).

Instrument:	UHPLC/DAD
Detection:	DAD
Column:	LUNA Omega C18 1.6 µm 100 x 2.1 mm
Inj.-Vol.:	2 µl
Flow:	0.5 ml/min
Ret.Time:	4.55 min

Method Details
Eluent A: WA
Eluent B: Acetonitrile

Time[min]	Eluent A [%]	Eluent B [%]
0	90	10
0.3	90	10
8	0	100
9.5	0	100
10	90	10

Comment
Traceability: The balances used are calibrated with weights traceable to the national standards (DKD).
Calibrated class A glassware is used for volumetric measurements.
Water Content: <0.10% (g/g) by Karl-Fischer-Titration (U(exp) = 0.03% (g/g)).
Identity: EA, NMR, RT, IR, UV, MS

Certificate Revision 1 - 23.05.2018 - M. Beck

Certified on: 23.05.2018
Certified by: M. Beck
RM Release

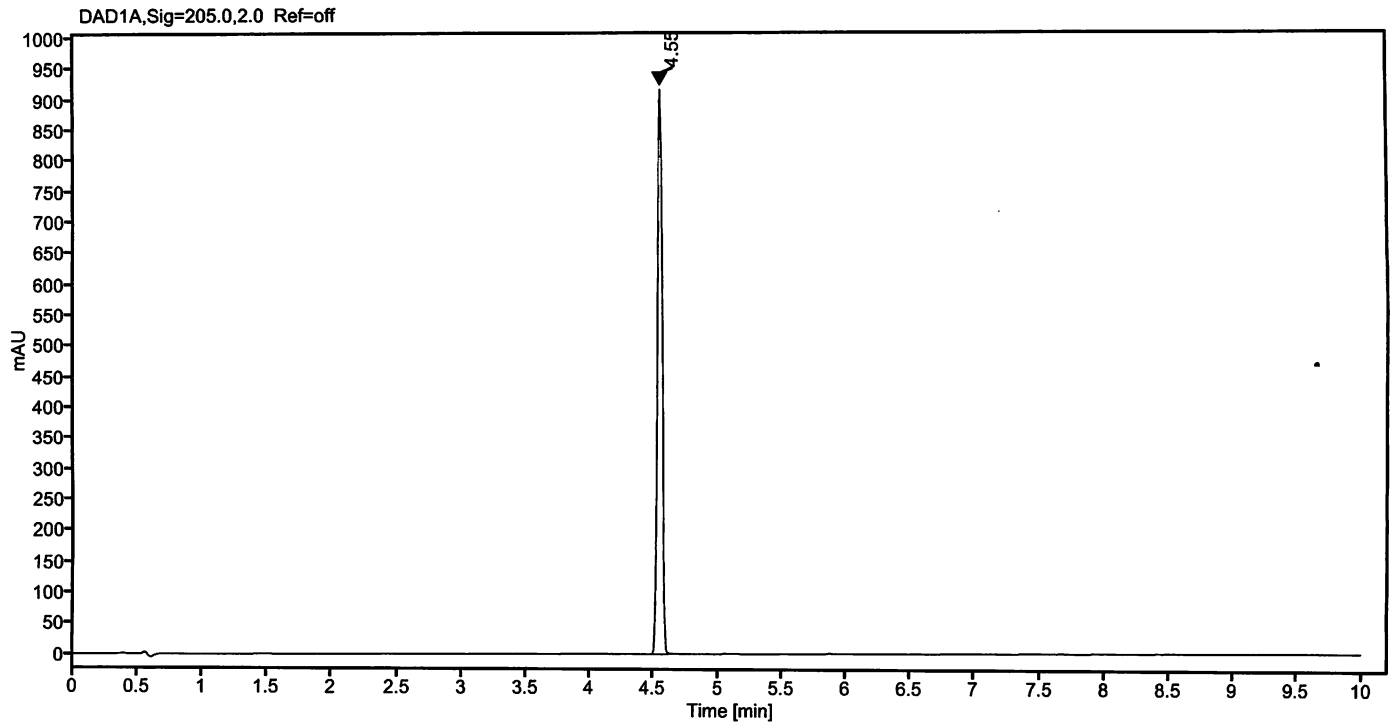
The LGC Labor GmbH, accreditated by DAkkS as indicated by the accreditation number D-RM-19883-01 & D-PL-19883-01, has shown competence based on ISO Guide 34:2009 with relevant parts of DIN EN ISO/IEC 17025:2005 for production of certified reference materials in form of organic pure substances and in form of single and multi-component solutions of organic pure substances.

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The warranty for this product is limited to the purchasing price of this product.

23.05.18
MG

Data file:	10968500-09-r001.dx	**Instrument:**	UHPLC 2
Sample name:	80517AL G171923	**Sequence Name:**	18052018-1b
Inj. volume [µl]:	2.0	**Injection date:**	5/18/2018 8:29:25 PM
Acq. method:	Gradient_10-100.amx	**Location:**	P4-B8

Sample Description Carbamazepin



Signal: DAD1A,Sig=205.0,2.0 Ref=off

Nr.	RT [min]	Area	Height	Area%
1	4.55	2406.45205	920.39	100.00
	Sum	2406.45		