

672959**Lot: 828122****Gentamicin sulfate salt hydrate**1. General Information

Formula		Expiry Date	01 Oct 2028
Mol. Weight	0.00 g/mol	Store at	4°C (in the dark)
CAS-No.	1405-41-0		

2. Batch Analysis

Identity	confirmed by LC-MS		
Overall Purity	90.26 % (g/g)	Expanded Uncertainty	1.83 % (g/g)
Assay Purity (HPLC)	99.62 % (g/g)	Uncertainty	0.38 % (g/g)
Water	9.40 % (g/g)		

contains sulfate: 29,0%
Gentamicin C1 27.7%
Gentamicin C1a 27.1%
Sum of C2+C2a 45.2%

Certified on 09 Oct 2024

by Jacqueline Seidel
RM Release

The overall purity is calculated by: $\text{Purity(\%)} = \frac{\text{Assay purity} \times (100 - \text{water content} - \text{impurities})}{100}$
For non-specified hydrates, the overall purity refers to the stated molecular formula.

The reported uncertainties are determined in accordance with ISO 17034 with a 95% confidence level ($k=2$). The Uncertainty is based on the combined uncertainties, including uncertainties of characterization and stability testing. The expiry date is based on the current knowledge and holds only for proper storage conditions in the originally closed flask. If the substance is proven to be unstable under the given storage conditions, you will be contacted immediately. The warranty of this product is limited to the purchasing price of this product and to the first point of use. The indicated long-term storage temperature can vary in a range of ± 4 °C.

Our standards are for laboratory use only and can be used as reference material for calibration of chromatographic systems or related analytical techniques. For handling instructions see the MSDS. A minimum sample of 2 mg is recommended. Deploying less material will increase the uncertainty by a factor 2 for half of sample and 4 for a quarter of sample. The material in the vial can be used multiple times, but it is strongly recommended that all external negative influences to the material are considered and ruled out (e.g. high temperatures, UV-radiation, moisture, oxygen). It is strongly recommended to open the vial at room temperature only and handle the material under inert gas if necessary. The integrity of the purity cannot be guaranteed if the substance is handled under unfavorable conditions.

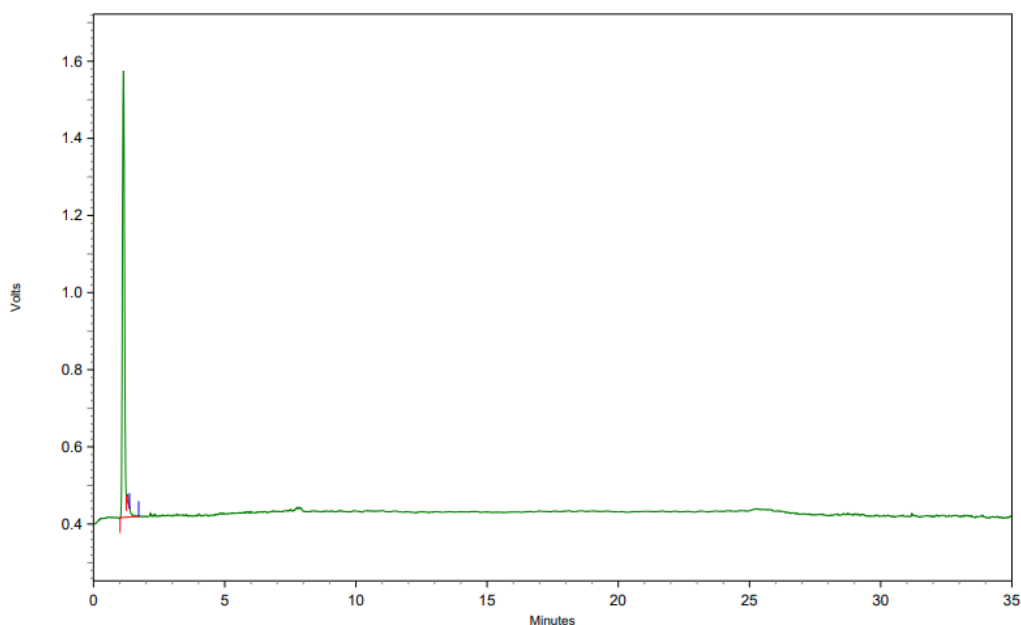
The balances used are calibrated with weights traceable to the national standards (DKD).

HPC Standards GmbH produces reference materials according to ISO 17034. For further information, check:



HPLC-Method

Article 672959
Lot-No. 828122
Column L=100mm, ID=4.6mm; Kinetex C18, 100A, 2.6µm
Eluent A Acetonitrile + 0.1% Formic acid
Eluent B Water + 0.1% Formic acid
Gradient
time %A %B
0min 0 100
19min 90 10
25min 90 10
Flow 0.9 ml min⁻¹
Detector ELSD
Injection-Volume 5 µl
Sample 1.0 mg ml⁻¹ (Water)



ELSD

Retention Time	Area	Area Percent
1.142	690061	99.23
1.300	5354	0.77
Totals		695415 100.00

Exemplary chromatogram of given method.

Version	Article	Lot	Reason for Change	Date
1	672959	828122	Initial Version	09 Oct 2024
2	672959	828122	Data Update	09 Oct 2024