

CERTIFICATE of ANALYSIS



Bile Acids

MaxSpec[®] Discovery Mixture

Item No.:	33505
Batch No.:	0688236
Expiry Date:	21SEP2028 (valid from date of certification)
Supplied as:	A solution in methanol; in a deactivated glass ampule
Verified Concentration:	See table
Volume per Ampule:	Not less than 1 ml. Ampules are overfilled. It is advised that labs use measured volumes.
Storage & Handling:	Store upright and unopened at -20°C. Warm to room temperature prior to opening. Light sensitive.

Description

MaxSpec[®] products are purpose built for mass spectrometry and related applications where quantitative reproducibility is required. This formulated solution has been prepared gravimetrically and is supplied in a deactivated glass ampule sealed under argon. The concentration was verified by comparison to an independently prepared calibration standard. Ongoing stability tests are performed to ensure the concentration remains accurate throughout the shelf life of the product. Follow recommended storage and handling conditions to maintain product quality.

Quality Information

Test	Limit	Result	Meets Specification
Identity, LC-MS	Identities confirmed	Pass	✓
Assay	90 – 110%	See table	✓

Approval: 

Title: Director of Analytical Chemistry

Certification Date: 21SEP2023

Cayman Chemical certifies that this product meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiry date when stored unopened as recommended.

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Quality Control Table

Raw Material Item No.	Raw Material Batch No.	Item Name	Monoisotopic Mass (Da)	Final Conc. (µM)	RT (min)	Assay (%)
31347	591707	Cholic acid	408.288	1.20	3.6	102.6
31349	591711	Deoxycholic acid	392.293	2.30	5.0	98.8
31351	591714	Glycocholic acid	465.309	2.30	3.5	102.7
31353	591719	Lithocholic acid	376.298	2.60	6.1	102.5
31361	591722	Taurochenodeoxycholic acid	499.297	4.00	4.6	94.1
31363	592189	Glycochenodeoxycholic acid	449.314	2.20	4.6	97.2
31365	592195	Chenodeoxycholic acid	392.293	3.40	4.8	98.5
31367	592198	Ursodeoxycholic acid	392.293	2.30	2.6	100.0
31374	606810	Taurocholic acid	515.292	4.20	3.5	102.1
31599	595026	Glycodeoxycholic acid	449.314	2.10	4.9	97.0
31600	595031	Glycohyodeoxycholic acid	449.314	2.00	2.8	97.7
31601	595033	Glycolithocholic acid	433.319	2.20	6.0	98.9
31602	595035	Glycoursodeoxycholic acid	449.314	2.30	2.4	99.4
31603	595037	Taurodeoxycholic acid	499.297	4.00	4.9	95.8
31604	595039	Tauroolithocholic acid	483.302	4.00	5.9	93.7
31605	595046	Tauroursodeoxycholic acid	499.297	4.30	2.4	98.9
31606	595049	Hyodeoxycholic acid	392.293	3.30	3.0	97.5
31614	595051	Taurohyodeoxycholic acid	499.297	2.00	2.8	98.4
LC-MS/MS Conditions: Sciex Exion LC-6500 Triple Quadrupole Mass Spectrometer						
Mobile Phase A: Methanol/Water (1:9 v/v) with 10 mM ammonium acetate (+1 ml 25% ammonium hydroxide)						
Mobile Phase B: Methanol with 10 mM ammonium acetate (+1 ml 25% ammonium hydroxide)						
Column: Waters BEH C18 2.1 x 50 mm, 1.7 µm					Oven Temp.: 30°C	
Gradient: 0 min 20%B; 0.2 min 50% B; 6 min 75%B; 7 min 100% B; 8 min 100%B; 8.1 min 20%B; 10 min 20%B						
Injection Volume: 1 µl			Negative Electrospray Ionization		MRM	

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Stability

Stability testing is ongoing to ensure concentration accuracy. The certificate of analysis and product expiry date will be updated upon completion of testing.

Date	Limit	Result	Meets Specification
21SEP2023	90 – 110%	Pass	✓

Revision History

Revision No.	Date	Reason for Revision
01	21SEP2023	Initial version
02	05DEC2023	Updated quality control table
03	22NOV2024	Expiry date extension

Disclaimers

Material Safety Data

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some but not all of the information required for the safe and proper use of this material. Before use, review the complete Material Safety Data Sheet, which has been sent via email to your institution.

Warranty and Limitation of Remedy

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

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Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specification.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver of Buyer of all claims hereunder with respect to said material. For further details, please refer to our Warranty and Limitations of Remedy located on our website and in our catalog.

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