



Certificate of Analysis

Tested analyte: tauroursodeoxycholic acid (TUDCA)

Tested sample: sample provided by BOOS LABORATORIES, s.r.o.; batch number: Logo126

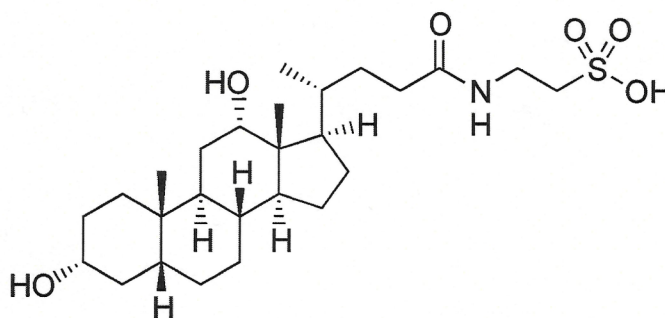


Figure 1: Structure of TUDCA

Results:

Appearance: ***white powder***

LC-MS/MS purity*: ***93.6%***

MS/MS spectra: ***conforms***

*Purity is based on the analytical results of the tests performed.

Test date
15th January 2026

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LC-MS/MS analysis description:

The triple quadrupole system XEVO TQ-S was equipped with a multimode ionisation source. The MS/MS detection was performed using negative electrospray ionisation mode. A triple quadrupole instrument was set up for a multiple reaction monitoring (MRM) experiment using a unit mass resolution (0.75 Da). The analyte was detected using the MRM transition $498.29\ m/z > 80.18\ m/z$. The chromatographic system, consisting of an Acquity UPLC system with a binary gradient pump, a sample manager with a flow-through needle (SM-FTN), and a column thermostat, was coupled to the mass spectrometer. Chromatographic separation was achieved on an Acquity UPLC BEH C18 (50 × 2.1 mm, 1.7 μm) column fitted with an Acquity UPLC BEH C18 VanGuard pre-column (5 × 2.1 mm, 1.7 μm). Mobile phase A consisted of 10 mM ammonium formate, and mobile phase B was acetonitrile. The analyte was separated using a gradient elution program over 3 min.

Reference material of tauroursodeoxycholic acid was supplied from Toronto Research Chemicals (Cat. No: T779310, Lot No: 2-DRJ-85-1). A 4-point calibration curve was prepared to determine the sample concentration, and purity was calculated considering on the sample weight (expected concentration). The purity is expressed as a mean of 12 separately weighed and analysed samples.

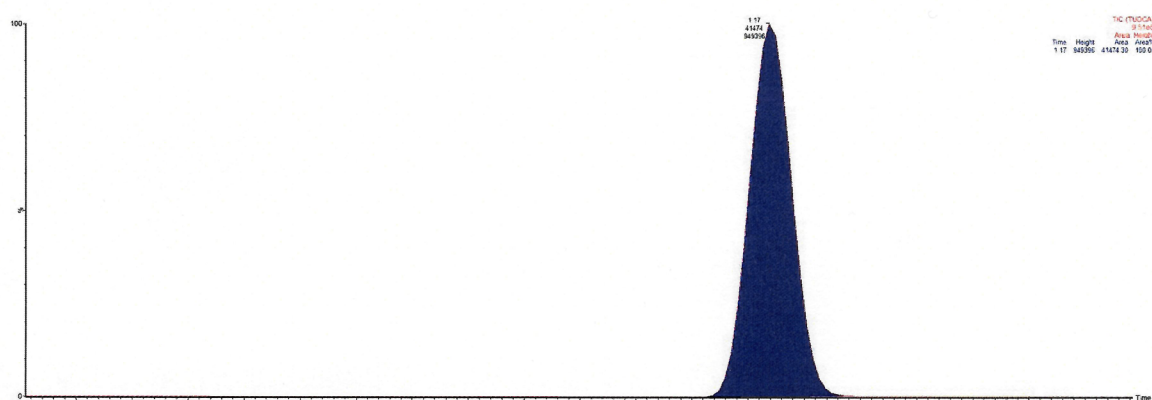


Figure 2: Illustrative chromatogram of the analysis. The x-axis represents retention time (min), and the y-axis represents the relative intensity (%).

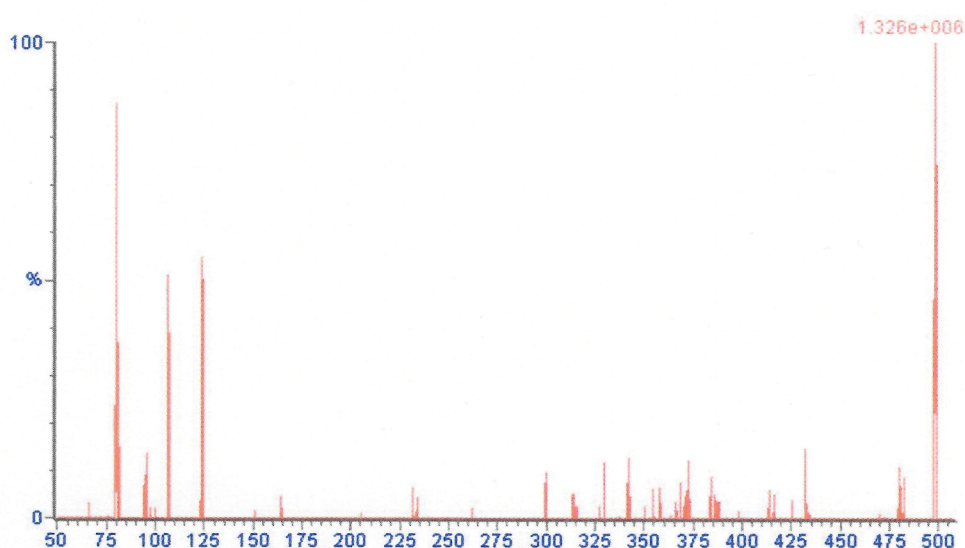


Figure 3: MS/MS spectra of TUDCA (collision energy 54 eV)