

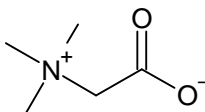


## Test Report

**Sample name:** "TMG"  
**Client:** Hansen Sp. z o.o., ul. Zaborowska 8, 05-083 Zaborów, Poland  
**Purpose of test:** Verification of delivered product  
**Sample description:** TMG  
**Brand name:** Hansen Supplements

### Description of substance:

**Sample size:** 10 g  
**Property:** yellow powder  
**Formula:** C<sub>5</sub>H<sub>11</sub>NO<sub>2</sub>  
**CAS number:** 107-43-7  
**Chemical name:** N,N,N-trimethylglycine  
**Structure:**



**Batch No.:** XJY17220301  
**Date received:** 10.02.2023  
**Test items:** Identification of substance, purity, heavy metals  
**Summary:** The sample has been identified and found to be of high quality  
**Measured purity:** **Above 98%** according to <sup>1</sup>H NMR analysis. Appropriate spectra are shown in (Fig. 1 and 2).

**Authentication method:** Standard and literature NMR shifts according to: Hsieh, Li-Ying, Hsiu-Hui Chan, Ping-Chung Kuo, Hsin-Yi Hung, Yue-Chiun Li, Chao-Lin Kuo, Yong Peng et al. "A feasible and practical <sup>1</sup>H NMR analytical method for the quality control and quantification of bioactive principles in Lycii Fructus." journal of food and drug analysis 26, no. 3 (2018): 1105-1112; [https://bmr.io/metabolomics/mol\\_summary/show\\_data.php?id=bmse000069](https://bmr.io/metabolomics/mol_summary/show_data.php?id=bmse000069) and ACDLABS database.



**All values are within the relevant standards**

**Test results:**

**Purity:**

Heavy metals: n.d.

Pb (Lead): n.d.

Hg (Mercury): n.d.

Cd (Cadmium): n.d.

As (Arsen): n.d.

**Comments:**

n.d. – not detected, below limit of detection on AAS spectr AA240FS + AA240Z + GTA120

**Date:** 2.05.2023

**Tested by:** Antoni Szumny

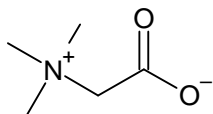


Figure 1. Chemical structure of TMG

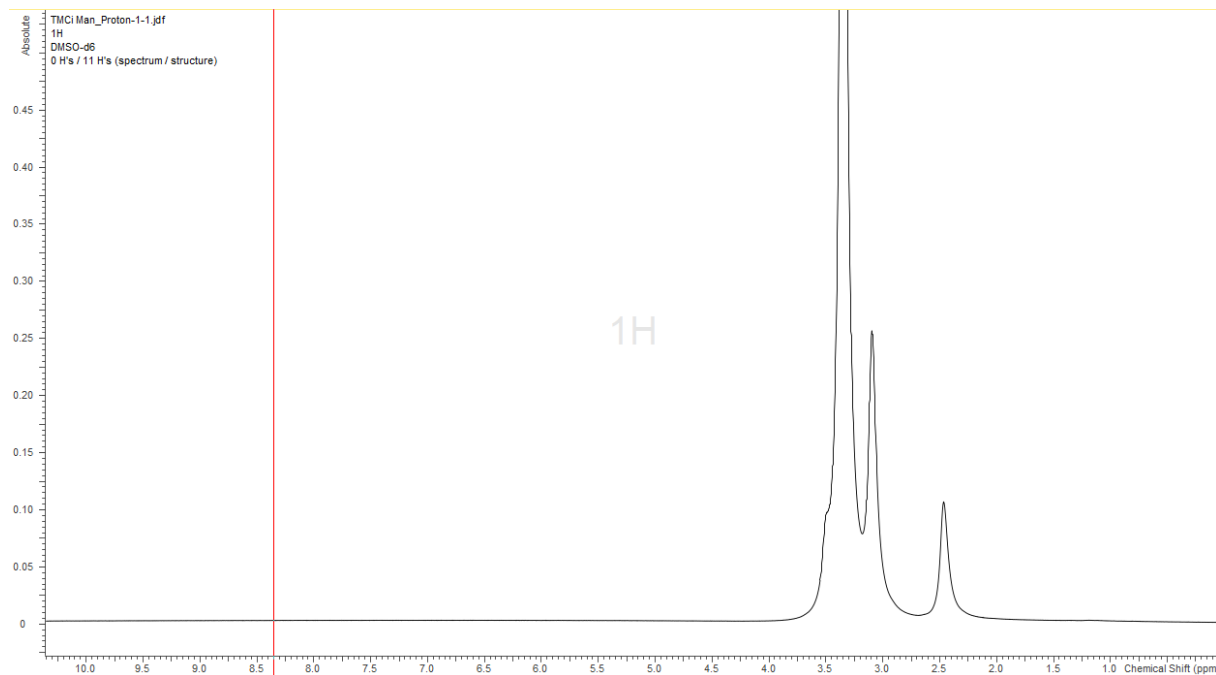


Figure 1.  $^1\text{H}$  NMR of Q-10, batch No. 90009221202 of NMR (In DMSO) full spectrum;

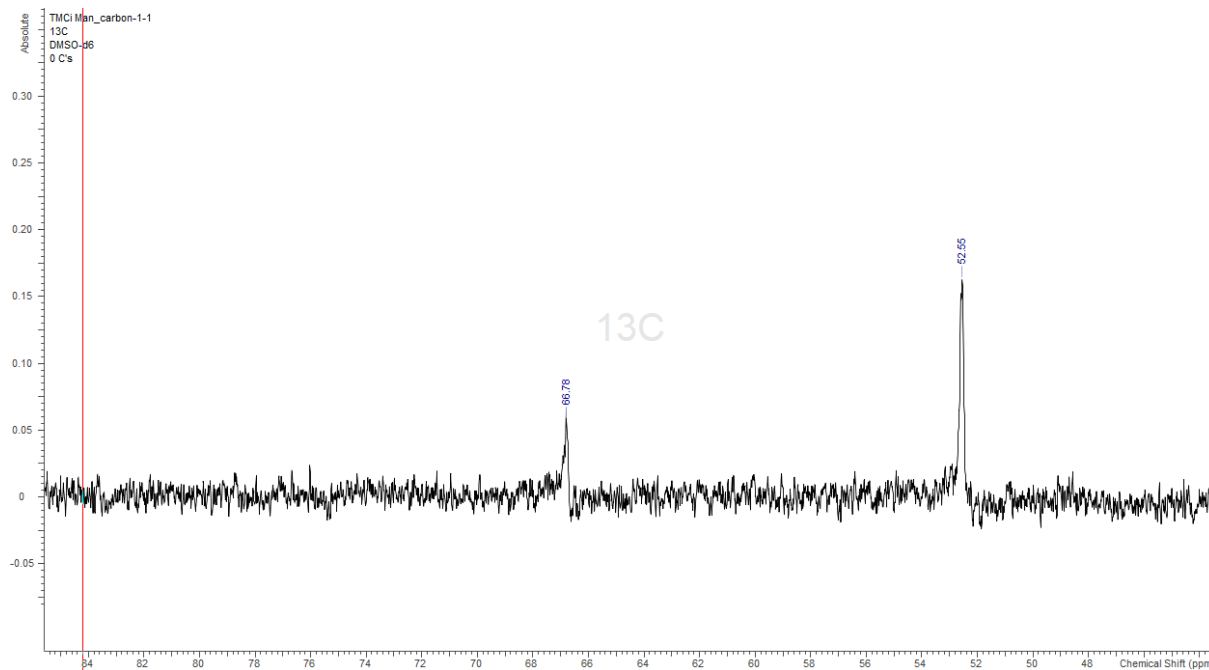


Figure 2  $^{13}\text{C}$  NMR of TMG, batch No. 90009221202 of (in DMSO) full spectrum;

02.05.2023, Antoni Szumny