

# CERTIFICATE OF ANALYSIS

Document No.: VLG-QA-COA-CP3726011602      Rev.: 01

## SECTION 1 · PRODUCT SPECIFICATION

|              |              |
|--------------|--------------|
| Product Name | L-Tyrosine   |
| PCT Code     | PCTX1156     |
| Batch No.    | CP3726011602 |
| Expiry Date  | 15.01.2029   |

## SECTION 2 · LABORATORY TEST RESULTS

Specific optical rotation was determined for the delivered batch and compared with a certified L-Tyrosine reference standard, in order to confirm the identity of the amino acid as the L-enantiomer.

| Parameter                                                     | Sample result                                                    | Reference standard                                                                               |
|---------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Specific optical rotation<br>[ $\alpha$ ] <sub>20/589nm</sub> | -11.48 ° / (g·l <sup>-1</sup> ·cm)<br>(5.0060 g/100 mL, 1 M HCl) | -11.40 ° / (g·l <sup>-1</sup> ·cm)<br>L-Tyrosine STD (Loba-Chemie)<br>(5.0075 g/100 mL, 1 M HCl) |

### Result interpretation

The specific optical rotation of the sample is negative and, within the precision of the method, matches the value obtained for the certified L-Tyrosine reference standard under identical conditions.

**Conclusion: Conforms — identity confirmed as L-form of Tyrosine.**

## SECTION 3 · ANALYTICAL METHOD & TESTING LABORATORY

### Method:

Determination of specific optical rotation by polarimetry. Sample and L-Tyrosine reference standard (Loba-Chemie, Austria) were each dissolved in 1 M hydrochloric acid and made up to volume in a 100 mL volumetric flask. Measurement performed on an Anton Paar MCP 500 polarimeter using a 200 mm polarimeter tube at 20 °C and 589 nm. Specific rotation calculated as  $[\alpha]_{20/589nm} = \alpha / (100 \cdot l \cdot c)$ , where  $\alpha$  is the measured optical rotation,  $l$  the path length (dm) and  $c$  the concentration (g/mL).

### Testing laboratory:

University of Chemistry and Technology Prague (VŠCHT Praha), Faculty of Food and Biochemical Technology, Institute of Carbohydrates and Cereals.

### Place & Date:

Brno, Czech Republic, 16 July 2026

### Quality Department

Vilgain s.r.o.

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