

## Certificate of Analysis

|              |          |
|--------------|----------|
| Product Name | Nisin    |
| Catalog No.  | V32946   |
| Batch No.    | V3294601 |

### 1. Physical and Chemical Properties

|                   |  |
|-------------------|--|
| Appearance        | Powder   |
| Molecular Formula | C <sub>143</sub> H <sub>230</sub> N <sub>42</sub> O <sub>37</sub> S <sub>7</sub> |
| Molecular Weight  | 3354.07  |
| Purity            | ≥98.0%   |
| CAS No.           | 1414-45-5  |
| Production Date   | 2024-02-02   |
| Retest Date       | 2026-02-01   |

### 2. Analytical Data

| Test Item          | Specification | Result   |
|--------------------|---------------|----------|
| Potency (IU/mg)    | ≥1000         | 1033     |
| Loss on drying(%)  | ≤3.0          | 0.5      |
| Sodium chloride(%) | ≥50.0         | 96.5     |
| Lead(Pb, mg/kg)    | ≤1.0          | confirms |

### 3. Structure

|   |
|---|
| <small>I-(Abu)-(D-Cys)-HALC-(D-Abu)-PGCK-(D-Abu)-GALMGCNMK<br/>-(D-Abu)-A-(D-Abu)-CHCSIHVAK(Disulfide bridge: Cys3-Cys7,<br/>Abu8-Cys11, Abu13-Cys19, Abu23-Cys26, Abu25-Cys28)</small> |
|---|

### 4. Storage Condition

|   |  |
|---|--|
| Storage Condition   | Powder    -20°C    3 years<br>4°C        2 years   |
|   | In solvent   -80°C    6 months<br>-20°C    1 month |
| <b>Note:</b> Please store this product in a sealed and protected environment (e.g. under nitrogen), avoid exposure to moisture and light. |  |

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