

# CERTIFICATE OF ANALYSIS

**Macerozyme R-10 from Rhizopus sp.**  
lyophil.

**Cat.No. : 28302**  
**Contr.No. : 220431**

| Parameter                 | Method                                      | Specification       | Result      |
|---------------------------|---|---------------------|-------------|
| <b>Appearance</b>         |   | pearl-white powder  | corresponds |
| <b>Solubility</b>         | 1 mg/ml 0.1 M sodium acetate buffer, pH 4.5 | clear and colorless | corresponds |
| <b>Activities (U/mg)</b>  | Pectinase                                   | ca. 0.5             | 0.68        |
|                           | Cellulase                                   | ca. 0.1             | 0.11        |
|                           | Hemicellulase                               | ca. 0.25            | 0.21        |
| <b>Minimum shelf life</b> |   |                     | 25.04.2024  |
| <b>Storage (°C)</b>       |   |                     | +2 to +8    |

## Unit definition

### Pectinase

1 Unit is that amount of enzymatic activity which catalyzes the liberation of 1  $\mu$ mol of reducing groups from polygalacturonic acid per minute at 25°C, pH 4.5, calculated as D-galacturonic acid.

### Cellulase

1 Unit is that amount of enzymatic activity which catalyzes the liberation of 1  $\mu$ mol glucose from sodium carboxymethyl cellulose per minute at 40°C, pH 4.5.

### Hemicellulase

1 Unit is that amount of enzymatic activity which liberates 1  $\mu$ mol of reducing groups from beechwood xylan per hour at 37°C, pH 5.5, calculated as xylose.

We do not guarantee that the product can be used for a special application.  
This document does not release you from performing the standard control upon receipt of incoming goods.

**SERVA Electrophoresis GmbH**  
**Quality Control**

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Christian Monsler

Daniela Lux-Helmstetter

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