

# CERTIFICATE OF ANALYSIS

<b>Macerozyme R-10 from Rhizopus sp.</b> lyophil.	<b>Cat.No. :</b> 28302 <b>Contr.No. :</b> 190117
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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	0.71
	Cellulase	ca. 0.1	0.10
	Hemicellulase	ca. 0.25	0.17
<b>Minimum shelf life</b>			30.01.2021
<b>Storage (°C)</b>			+2 to +8

## Unit definition

### Pectinase

1 Unit is that amount of enzymatic activity which catalyzes the liberation of 1 µmol 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 µmol 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 µmol of reducing groups from beechwood xylan per hour at 37°C, pH 5.5, calculated as xylose.

<p><b>We do not guarantee that the product can be used for a special application.</b>  <b>This document does not release you from performing the standard control upon receipt of incoming goods.</b></p>
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**SERVA Electrophoresis GmbH**  
**Quality Control**

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Christian Monsler

Daniela Lux-Helmstetter

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