

# CERTIFICATE OF ANALYSIS

<b>Cellulase ''Onozuka'' R-10 from Trichoderma viride</b> E.C. 3.2.1.4			Cat.No.: 16419 Contr.No.: 210781
Parameter	Method	Specification	Result
Molecular weight		ca. 52 000	
Appearance		beige lyophilisate	corresponds
Activities (U/mg)	Cellulase Hemicellulase Protease (DMC) α-Amylase Pectinase	ca. 1 ca. 1 ca. 0.01 ca. 0.8 ca. 0.4	1.2 corresponds corresponds corresponds corresponds
Minimum shelf life		is	02.07.2024
Storage (°C)		oresis	+2 to +8
Unit definitions		o'	

## Cellulase

1 unit is the 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 the 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.

#### Protease

1 DMC-unit is that amount of enzymatic activity which catalyzes the cleavage of 1  $\mu$ equivalent peptide bond from dimethylcasein per minute at 25°C, pH 7.0, expressed in terms of the appearance of new terminal amino groups.

#### α-Amylase

1 unit is that amount of enzymatic activity which catalyzes the liberation of 1  $\mu$ equivalent of reducing groups from soluble starch (Zulkowsky) per minute at 25°C, pH 6.0, calculated as maltose.

#### Pectinase

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

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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