



Product Information Sheet

M481 Macerozyme R-10

Synonym: N/A
CAS: 9032-75-1
Formula: N/A
Molecular Wt: N/A

Properties

Form: Powder
Appearance: Gray to Beige
Application: Enzyme
Solubility: Soluble in Water
pH-optimum: 3.5 – 7.0
Storage Temp: 2 to 6°C
Storage Temp of Stock Solution: N/A
Other Notes: Derived from *Rhizopus sp.*

Application Notes

Macerozyme R-10 is derived from *Rhizopus sp.* It is a multi-enzymatic system consisting of high pectinase and hemicellulase activities and low cellulase activities. Macerozyme R-10 is useful in isolating single plant cells by degrading plant cell wall. It is often used with Cellulase Onozuka R-10 (Product No. C224) and Cellulase Onozuka RS (Product No. C214).

Macerozyme R-10 contains 0.5 U/mg of pectinase activity, 0.25 U/mg of hemicellulase activity, and 0.1 U/mg of cellulase activity. The pectinase activity of Macerozyme R-10 is calculated as D-galacturonic acid; 0.5 unit of pectinase activity at pH 4.5 will liberate 1 µmol of its reducing group per minute at 25°C from pectic acid. As for hemicellulase activity, its activity is calculated as xylose; 0.25 unit of hemicellulase activity at pH 5.5 will liberate 1 µmol of its reducing group per hour at 37°C from beechwood xylan. Lastly, 0.1 unit of cellulase activity at pH 4.5 will liberate from sodium carboxymethyl cellulose 1 µmol of glucose at 40°C per minute.

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