Pectolyase Y-23 & Cellulase YC

Product Description

Maceration enzyme for protoplast preparation from higher plants

Catalog #: D18251, 10g
Name: Pectolyase Y-23
Powered fungal pectinase preparation
CAS: 9033-35-6
Activity: approx. 100x103 maceration units* per gram
pH: effective in the range of 4.5-6.5 (optimum activity pH is 5.5)
Stable in the range of pH 4.0-7.0
Storage: +4°C (L), dry

Catalog #: AM7241, 10g  AM72422, 100g
Name: Cellulase Y-C
Powered fungal cellulase preparation
CAS: 9032-75-1
IUB number: 3.2.1.4 (β-1,4-glucan-4-glucanohydrolase)
Storage: +4°C (L), dry

Applications:
For Research Use Only
- Protoplast preparation

Introduction

Pectolyase Y-23 is a highly purified maceration enzyme from Aspergillus japonicus. It contains two types of pectinases such as endo-polygalacturonase (EC:3.2.1.15)(1) and endo-pectin lyase (EC:4.2.2.3)(2) in high activity. In an additional component is included a maceration stimulating factor which remarkably stimulates tissue maceration by both pectinases (3,4).
Thus, pectolyase Y-23 can isolate biologically active protoplasts from widest spectrum of higher plants and tissues in a combination with Cellulase Y-C #AM7241 in a brief incubation (5,6).

Cellulase Y-C is a cellulase from Tricoderma viride for the preparation of protoplast from plant tissues.
Optimum pH: 3.0-5.0
Optimum temperature: 40-50°C
pH stability: 3.0-6.0 (37°C, 30min)
Temperature stability: below 50°C (pH 4.0, 30min)
Activity: above 25 000 u/g filter paper decomposing activity (determined by modified Toyama's assay method)
Directions for use

Guidelines for use – Examples for protoplast preparation

<table>
<thead>
<tr>
<th>Composition of incubation mixture</th>
<th>from leaf mesophyll (5)</th>
<th>from cultured cells (6)</th>
<th>from oat (Avena sativa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pectolyase Y-23</td>
<td>0.1%</td>
<td>0.05%</td>
<td>1%</td>
</tr>
<tr>
<td>Cellulase preparation</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Mannitol</td>
<td>0.7M</td>
<td>0.4M</td>
<td>0.5M</td>
</tr>
<tr>
<td>pH</td>
<td>5.5</td>
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<tr>
<td>Temperature</td>
<td>30°C</td>
<td>30°C</td>
<td>25-27°C</td>
</tr>
<tr>
<td>Incubation time</td>
<td>30-60min</td>
<td>50-60min</td>
<td>2-3Hr</td>
</tr>
</tbody>
</table>

References

Related / associated products and documents
See BioSciences Innovations catalogue and e-search tool.

Other Information

For in vitro R&D use only

Please contact InterBioTech – Interchim for any other information

Rev. H09E

Contact your local distributor
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