Cell Lytic Enzymes

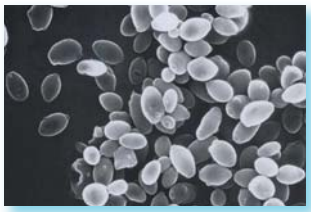
Westase™ Yeast Cell Lytic Enzymes

Better Lytic Enzymes for Zymolyase®

Westase™ is a fungus derived enzymes preparation containing β-1, 6 glucanase and β-1, 3 glucanase activities. It efficiently lyses *S. cerevisiae*, *S. pombe*, as well as yeasts resistant to Zymolyase® treatment such as *Ustilago maydis*, *Phaffia rhodozyma*, *Cryptococcus albidus*. It can prepare various DNA and intracellular enzymes.

Features

- Uniquely contains high β-1,6 glucanase activity
- Forms protoplasts not only in ascomycetous yeast, but also in fission yeast *Schizosaccharomyces pombe* which cannot be fully made into protoplasts by Zymolyase®.
- Forms protoplasts in basidiomycete yeast and imperfect yeast which is difficult to make protoplasts.
- Has high protoplast recycling rate.
- Can also be used for preparing DNA from yeast as DNase activity is not accepted under recommended conditions.



Yeast fungus

Form	Lyophilized powder (containing celite as the excipient)
Origin	*Streptomyces rochei* DB-34
Specifications	β-1, 6 glucanase activity (37℃) ≧ 400 units/g Lytic activity (30℃) ≧ 35,000 units/g DNase activity: undetectable (McIlvain Buffer, pH6.0)
Optimum temperature	30 - 50℃
Optimum pH	6.0

Protoplast formation rate (Comparison between Westase™ and Zymolyase®)

Strain	Protoplast formation rate	
	Westase™	Zymolyase®
1. *Schzosaccharomyces pombe* IFO 0351	++	+
2. *Saccharomyces cerevisiae* X2180-1A	++	++
3. *Zygosaccharomyces rouxii* IFO 1130	-	++
4. *Hansenula mrakii RIB* 5226	++	++
5. *Kluyveromyces lactis* IFO 0433	++	++
6. *Pichia anomala* IFO 10213	++	++
7. *Lipomyces starkeyi* IFO 10381	++	+
8. *Filobasidium floriforme* IFO 1915	++	-
9. *Ustilago maydis* IFO 5346	++	-
10. *Rhodosporidium toruloides* IFO 10512	++	-
11. *Tremella mesenterica* IFO 9310	++	-

Strain	Protoplast formation rate	
	Westase™	Zymolyase®
12. *Graphiola phoenicis* IFO 9100	++	-
13. *Sporobolomyces roseus* IFO 1105	-	-
14. *Brettanomyces bruxellensis* IFO 0797	++	++
15. *Candida colliculosa* IFO 0663	++	++
16. *Candida tropicalis* IFO1400	+	++
17. *Candida utilis* IFO 0639	++	++
18. *Kloeckera apiculata* IFO 0865	++	++
19. *Rhodotorula glutinis* IFO 1125	-	-
20. *Trigonopsis variabilis* IFO 0755	++	++
21. *Cryptococcus albidus* IFO 0612	++	-
22. *Phaffia rhodozyma* IFO 10129	++	-

++: Over 80%, +: Under 50%, -: 0%

Description	Cat. No.	Quantity	Storage
Westase™	OZK-OZ-20EX	2 G	4℃, dry condition

COSMO BIO CO., LTD.

Yatalase™ Fungal Cell Lytic Enzymes

Aspergillus

Yatalase™ is a *Corynebacterium sp* derived enzyme that lyses cell walls of filamentous fungi. It enables measurement of microbiomass of malted rice easily, and preparation of various DNA and intracellular enzymes.

Features

- Has chitinase, chitobiase, β -1, 3-glucanase activities.
- Raw chitin strongly degrades.
- Filamentous fungus protoplast can be prepared only with this product.
- Superior in heat stability.

Form	Lyophilized powder (containing lactose as the excipient)
Origin	Prepared from a culture supernatant of *Corynebacterium sp.* OZ-21
Specifications	Chitinase activity: ≧50 units/g powder Chitobiase activity: ≧500 units/g powder Lytic activity against cell walls : Approximately 10,000 units/g powder
Optimum temperature	30 - 50℃
Optimum pH	5 - 8

Description	Cat. No.	Quantity	Storage
Yatalase™	OZK-OZ-10EX	2 G	4℃, dry condition

Labiase™ Bacterial Cell Lytic Enzymes

Lactic acid bacteria

Labiase™ is a wide spectrum bacteriolytic enzyme preparation that efficiently digests walls of many Gm+ bacteria (lactic acid bacterium, hiochi bacterium) and a smaller number of Gm- bacterial strains.
Use Labiase™ to lyse bacteria for extraction of DNA or other intracellular components, cell wall structural analysis, or to suppress the growth of certain harmful bacteria.

Features

- Superior in heat stability
- Has β-N-Acetyl-D-glucosaminidase activity, muramidase and endopeptidase.
- Lyses cell walls of numerous Gm+ bacteria effectively.
- Excellent in storage stability
  (Stable regardless of storage form, such as powder or liquid.)

Form	Lyophilized powder (containing lactose as the excipient)
Origin	Prepared from the culture fluid supernatant of *Streptomyces fulvissimus* TU-6.
Specifications	β-N-Acetyl-D-glucosaminidase activity over 5 U/vials
Optimum temperature	40 - 60℃
Optimum pH	3.5 - 4.5

Description	Cat. No.	Quantity	Storage
Labiase™	OZK-OZ-30EX	500 MG	4℃, dry condition

COSMO BIO CO., LTD.
TOYO EKIMAE BLDG. 2-20, TOYO 2-CHOME,
KOTO-KU. TOKYO 135-0016, JAPAN
TEL : (81)3-5632-9617
FAX : (81)3-5632-9618
e-mail : export@cosmobio.co.jp
URL : www.cosmobio.com