

Westase from *Streptomyces rochei* DB-34

Cat#OZK-OZ20-EX

Westase was prepared from liquid culture supernatant of *Streptomyces rochei* DB-34. This product has complex lytic activities of yeast cell mainly consisting of 8-1,6 glucanase and 8-1,3 glucanase activity. This enzyme works well for Ascosporogenous yeasts such as *Saccharomyces cerevisiae*. But it is also available for fission yeasts such as *Schizosaccharomyces pombe* which cannot be protoplasted just with Zymolyase treatment or Basidiosporogenous yeasts, Imperfect yeasts such as *Ustilago maydis, Phaffia rhodozyma, Cryptococcus albidus*, etc. which are rarely protoplasted, and make them efficiently into protoplast.

SPECIFICATIONS:

Appearance Package Size Lyophilized powder (containing celite as the excipient) 2 g

DEFINITION OF ACTIVITY

β-1,6 glucanase activity:

One unit is defined as the amount required to release 1 μ mol reducing sugar from 10 mg/ml Pustulan solution in 1 min. at 37°C, pH6.0.

Lytic activity

One unit is defined as the amount required to cause a 1% decrease in absorbance at 660 nm in 1 min. at 30°C, pH6.0 when using cell wall fraction of *Cryptococcus albidus* IFO 0612

Specific activities

β-1,6 glucanase activity	\geq 400 units/g
Lytic activity	\geq 35,000 units/g
DNase activity	ND (McIlvain Buffer, pH6.0)

STORAGE:

Lyophilized preparation is stable for at least 1 year when stored at 4°C.



[PROTOCOLS]

Conditions for protoplast preparation

Strains	Culture media	Culture conditions	Conditions for preparing protoplasts
(1) *Saccharomyces cerevisiae *Trigonopsis variabilis	YPG medium	25°C, 1day, Shake culture (reciprocate at 120 rpm)	0.5% Westase solution 0.5 M Na-tartrate McIlvain Buffer (pH6.0) 30°C Reciprocal shaking, 1–2 hr
(2) *Lipomyces starkeyi *Candida utilis	Same as in (1)	Same as in (1)	0.5% Westase solution 0.4 M Na-tartrate McIlvain Buffer (pH6.0) 30°C Reciprocal shaking, 1–2 hr.
(3) *Shizosaccharomyces pombe *Hansenula mrakii *Kluyveromyces lactis *Pichia anomala *Filobasidium floriforme *Candida colliculosa	Same as in (1)	Same as in (1)	0.5% Westase solution 0.4 M Na-tartrate McIlvain Buffer (pH6.0) 30°C Reciprocal shaking, 3–4 hr.
(4) * Kloeckera piculata *Cryptococcus lbidus	Same as in (1)	Same as in (1)	0.5% Westase solution 0.3 M Na-tartrate Mcllvain Buffer (pH6.0) 30°C Reciprocal shaking, 1–2 hr.
(5) * Ustilago maydis *Graphiola phoenicis *Brettanomyces bruxellensis *Phaffia rhodozyma	Same as in (1)	25°C, 2days, Shake culture (reciprocate at 120 rpm)	Same as in (1)
(6) * Tremella mesenterica	Same as in (1)	Same as in (5)	Same as in (2)

Distributor

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