



CELLULASE (*endo*- β -GLUCANASE) from *Trichoderma* sp. (Lot 30201)

E-CELTR

06/03

PROPERTIES

(1) ELECTROPHORETIC PURITY

- single band on SDS-gel electrophoresis (MW = 57,250); some minor bands.
- single major band on Isoelectric focusing (pI = 4.7); minor band at pI 4.6.

(2) SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES

SUBSTRATE	ENZYME MEASURED	SPECIFIC ACTIVITY (U/mg protein)
CM-Cellulose 4M	<i>endo</i> -1,4- β -Glucanase	108
CM-Cellulose 7M	<i>endo</i> -1,4- β -Glucanase	107
Xyloglucan (Tamarind)	<i>endo</i> -1,4- β -Glucanase	78
Barley β -Glucan	<i>endo</i> -1,4- β -Glucanase	75
Amorphous Cellulose	<i>endo</i> -1,4- β -Glucanase	31
Konjac Glucomannan	<i>endo</i> -1,4- β -Glucanase	6.2
Birchwood Xylan	<i>endo</i> -1,4- β -Xylanase	11.0
Carob Galactomannan	<i>endo</i> -1,4- β -Mannanase	< 0.008
Pachyman	<i>endo</i> -1,3- β -Glucanase	< 0.001
Curdlan	<i>endo</i> -1,3- β -Glucanase	< 0.001
Starch	<i>endo</i> -1,4- -Glucanase	< 0.007
<i>p</i> -NP- -Glucoside	-Glucosidase	< 0.001
<i>p</i> -NP- β -Glucoside	β -Glucosidase	< 0.001
<i>p</i> -NP- β -Xyloside	β -Xylosidase	< 0.001
<i>p</i> -NP- -Galactoside	-Galactosidase	< 0.001
<i>p</i> -NP- β -Galactoside	β -Galactosidase	< 0.001
<i>p</i> -NP- β -Mannoside	β -Mannosidase	< 0.001
<i>p</i> -NP- -L-arabinoside	-L-arabinofuranosidase	< 0.001

All activities are at pH 4.5 and 40°C. Glycosidase activities were measured using the appropriate *p*-Nitrophenyl glycoside (at 10mM). *endo*-Glycanases were determined with the appropriate substrate (at 10mg/ml) and using the Nelson/Somogyi reducing-sugar procedure.

(3) PHYSICOCHEMICAL PROPERTIES

pH Optima	4.5 - 5.0	pH Stability	2.5 - 7.5
Temp. Optima	70°C	Temperature stability	< 65°C.

(4) STORAGE CONDITIONS

The enzyme is supplied as an ammonium sulphate suspension in 0.02% sodium azide and should be stored at 4°C. On dissolving in buffer or water, the enzyme should be stored in the frozen state between use.

The concentration of enzyme as supplied is approximately 500 U/ml.