

Recombinant Enzyme Product Specification Sheet

Cat. No.:	PRO-E0252	
LOT:	2008-0252	
Activity:	Pectate lyase	
Synonyms:	Polygalacturonic transeliminase; pectic acid transeliminase; polygalacturonate lyase; endopectin methyltranseliminase; pectate transeliminase; endogalacturonate transeliminase; pectic acid lyase; pectic lyase; α -1,4-D-endopolygalacturonic acid lyase; PGA lyase; PPase-N; endo- α -1,4-polygalacturonic acid lyase; polygalacturonic acid lyase; pectin <i>trans</i> -eliminase; polygalacturonic acid <i>trans</i> -eliminase	
Nomenclature:	Pel9, PL9, PL 9, polysaccharide lyase family 9	
Source organism:	<i>Clostridium acetobutylicum</i> ATCC 824	
Enzyme Commission No.:	4.2.2.2	
Activity:	21 U/mL	} (37°C; pH 7.0; polygalacturonic acid)
Specific activity:	3.2 U/mg	
Purity:	>95 % as judged by SDS-PAGE	
Form and storage:	Supplied in 3.2 M ammonium sulphate, store at 4°C (shipped at room temperature)	
pH optimum:	~ 7.0	
Temperature optimum:	37°C	
[Protein]:	6.63 mg/mL	
Sequence length:	245 amino acids (view sequence)	
Accession No.:	Q97HP2	
Molecular weight:	26628.7 Da	(theoretical)
	~ 30000 Da	(observed by SDS-PAGE)
	-	(observed by mass spectrometry)
Biological function:	Cleavage of polygalacturonic acid or plant pectins after the action of pectin methyl esterase	
Potential application(s):	Biomass conversion , carbohydrate research	
Comments:	Shows a preference for polygalacturonic acid over esterified pectin with no activity against trigalacturonic acid	

Usage: Agitate bottle sufficiently to fully homogenise enzyme precipitate before use

Assay: One unit is defined as the amount of enzyme required to release 1 μmol of 4,5-unsaturated galacturonide product per minute from 1.3 mg/mL polygalacturonic acid in 50 mM Tris-HCl buffer, pH 7.0, containing 0.1 mM MnCl_2 , at 37°C, as measured at 232 nm.

Primary sequence:

KSVNAKGDIAASKLEAGGVIPAGNYTLNRGVKVTKPI SAEGVVIDASACPKGTIAIVARANISGITINNAKRQGIS
VQNCSGITIKNCKVTKAQFAGIEAKDNVSNVTFENCESDYNFDNANGGEDADGFGIKNGAKNITLKNCAIGNSD
DGYDITYTAGSNITFLGCRAQNNGSGKNGDNGFKLGPCLYKNQDGLVTVKNCTALNNKGVGFLRNHNKVAPVQS
GNIASGNKGGDFKWDYTPRK

Literature: -