

Recombinant Enzyme Product Specification Sheet

Cat. No.:	PRO-E0251
LOT:	2008-0251
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:	CC2035, Pel10A, PL10, PL 10, polysaccharide lyase family 10
Source organism:	<i>Caulobacter crescentus</i> CB15
Enzyme Commission No.:	4.2.2.2
Activity:	328 U/mL
Specific activity:	283 U/mg
	} (37°C; pH 8.5; polygalacturonic acid)
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:	~ 8.5
Temperature optimum:	37°C (stable up to 37°C)
[Protein]:	1.16 mg/mL
Sequence length:	511 amino acids (view sequence)
Accession No.:	Q9A6P9
Molecular weight:	58857.2 Da (theoretical)
	~ 55000 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 31 % esterified pectin over polygalacturonic 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 8.5, containing 0.1 mM CaCl_2 , at 37°C, as measured at 232 nm.

Primary sequence:

APTRDAALETMKKATRFMVDKVVAYKGGYVWSYLPDLSRRWGEMEAYPTMIWVQPPGTATMGHVFLDAYHATGDEA
YYDAACKAAEALIAIQHPAGGWNYLGDLAGESIRKWDYDTIGKNGWRLEEFQHYYGNATFDDAGTAESSQFLRL
YVEKQDKRFKPALDKALQFVVDSQYPNGGWPQRFPLKTEFQNHGRPDYTGYYITFNDDVAGENIKFLIMIWTGLD
PRALPAIKKAMDCFVICQQPQPQPAWGLQHHVDTLKPAAARSYEPEAFASHTTGANIASCMDFYQLTGDPKYLAR
LGEALDWLDSIRLPQEIQKGRPYPTFIEVGTGKPLYVHRRGNSVNVNGEYYTDENPHGTVIHYSSFRAVNV DGLRK
RLAKLKAMSPEVASKDSPLKGRKALPKYFTTGDIVSVDLNVDTLKADAGQTS PDKVASLIASLNAEGWWPTELR
ATSNPYIGDGSPTPAPGDFSQTRVGDATDTSPYITDTPKIGISTGTYIENMAALIKYVTAS

Literature: -