

Molecular Determinants of Substrate Recognition in Thermostable α -glucosidases Belonging to Glycoside Hydrolase

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J Biochem (Tokyo) 2007; 142: 87–93; doi:10.1093/jb/mvm110

The publishers wish to apologize for errors which occurred in Table 2 of this article. The correct version is published below.

Table 2. Hydrolase activities of various enzymes. Each transformant was cultured in a test tube containing 5 ml of LB medium (0.5% yeast extract, 1% peptone, 1% NaCl, pH 7.2) supplemented with 100 mg/ml of ampicillin at 37°C, with shaking for 16 h. Cells were harvested by centrifugation (2000 g at 4°C for 10 min) and washed at least twice with cold saline (0.85% NaCl). Each pellet was suspended in buffer A (50 mM potassium phosphate buffer, 5 mM EDTA, pH 7.0) and sonicated. The lysate was centrifuged. The supernatant was used for enzyme assay at 55°C.

Enzymes		Region I	Region II	Region III	Region IV	Hydrolase activity (mU/mg protein)		
						pNPG	Maltose	Isomaltose
Wild-types	BS	98-DLVINH-103	194-DGFRIDAISH-203	256-EANG-259	321-FLENHDL-327	2230	0.8	4.8
	BT	98-DLVVNH-103	194-DGFRMDVNM-203	256-ETPG-259	325-YLNNHDQ-331	12600	6890	4670
Mutants of BT	V101I	I				19400	1.7	4490
	V200A		A			6790	1180	1970
	N202S		S			6920	1.0	6320
	M203H		H			6940	1.3	8400
	V200A/N202S		A S			4840	972	2330
	V200A/M203H		A H			6300	2790	5420
	N202S/M203H		SH			2960	3.0	5380
	V200A/N202S/M203H		A SH			5580	1780	2000
	T257A		A			35700	1.6	7810
	P258N		N			19300	21.4	5500
	T257A/P258N		AN			11600	22.1	4190
	Y325F			F		14300	0.8	3640
	Q331L				L	6360	0.7	1380
	Y325F/Q331L			F	L	7010	1.1	1610
	V200A/N202S/M203H/ T257A/P258N		A SH	AN		11600	9050	2170
	V200A/P258N		A	N		14500	7100	3200
	V101I/V200A/P258N	I	A	N		16700	9900	3640
	V101I/Y325F/Q331L	I			F	14600	0.8	1820
	V101I/V200A/P258N/ Y325F/Q331L	I	A	N	F	L	9710	2540
	V101I/V200A/N202S/ M203H/T257A/ P258N/Y325F/Q331L	I	A SH	AN	F	L	1200	1620
Mutants of BS	A200V		V			71	1.7	0.1
	N258P			P		4580	3280	14.4