

Table II. Comparison of the kinetic parameters of parental (Glu1 and Dhr1) and chimeric (Glu1/Dhr1) β -glucosidases.

Enzyme	<i>p</i> NPG				<i>o</i> NPG			
	K_m (mM)	k_{cat} (S^{-1})	k_{cat}/K_m (S^{-1}/mM)	relative efficiency (%)	K_m (mM)	k_{cat} (S^{-1})	k_{cat}/K_m (S^{-1}/mM)	relative efficiency (%)
Glu1	0.38	24.16	63.57	100	1.30	19.83	15.25	100
Dhr1	-	NA*	-	-	-	NA*	-	-
Chim2	0.39	107.91	276.69	435	1.36	64.25	47.24	310
Chim15	0.35	34.26	97.88	153	1.39	31.19	22.43	147
Chim16	0.42	90.80	216.38	340	1.23	54.02	43.91	287
Chim21	0.36	87.24	242.55	381	1.40	37.05	26.46	173
Chim22	0.35	68.90	196.42	308	1.02	45.65	44.75	293

* no activity detected

Table III: Comparison of the kinetic parameters of parental (Glu1 and Dhr1) and chimeric (Glu1/Dhr1) β -glucosidases for the natural substrates dhurrin and DIMBOAGlc.

Enzyme	Dhurrin				DIMBOAGlc			
	K_m (mM)	k_{cat} (S^{-1})	k_{cat}/K_m (S^{-1}/mM)	relative efficiency (%)	K_m (mM)	k_{cat} (S^{-1})	k_{cat}/K_m (S^{-1}/mM)	relative efficiency (%)
Glu1	-	NA*	-	-	0.098	29.16	297.55	100
Dhr1	0.05	77.70	1494.2	100.0	-	NA*	-	-
Chim2	0.36	22.70	62.4	4.0	0.205	43.33	211.36	71
Chim15	0.51	13.46	26.1	1.7	0.106	24.02	226.60	76
Chim16	0.10	31.83	303.1	20.8	0.200	19.54	97.70	32
Chim21	0.09	46.02	494.8	33.1	0.104	20.15	195.19	65
Chim22	0.18	27.17	150.9	10.0	0.098	25.67	261.93	88

* no activity detected