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Supporting Information

Table S I. Detailed list of the enzymes used in this study.

ser. no.	trade name	source of hydrolase
Roche Molecular Biochemicals (Mannheim, Germany):		
1	Chirazyme® L-1	*Pseudomonas cepacia*
2	Chirazyme® L-2	*Candida antarctica* (lipase B)
3	Chirazyme® L-5	*Candida antarctica* (lipase A)
4	Chirazyme® L-6	*Pseudomonas sp.*
5	Chirazyme® L-7	porcine pancreas
6	Chirazyme® L-8	*Humicola sp.*
7	Chirazyme® L-9	*Rhizomucor miehei*
8	Chirazyme® L-10	*Alcaligines sp.*
9	Chirazyme® E-1	pig liver (esterase)
10	Chirazyme® E-2	hog liver (esterase)
11	lipase	*Rhizopus arrhizus*
12	lipase	pig pancreas
Amano Pharmaceutical Co, Ltd. (Nagoya, Japan):		
13	lipase PS	*Pseudomonas cepacia*
14	ACS	[a]
15	lipase R	*Penicillium roqueforti*
16	lipase F	*Rhizopus javanicus*
17	lipase A	*Aspergillus niger*
18	lipase D	*Rhizopus delemar*
19	lipase AH	*Pseudomonas cepacia*
20	lipase M	*Rhizomucor javanicus*
21	lipase AK	*Pseudomonas fluorescens*
22	lipase G	*Penicillium cyclopium*
23	lipase AY	*Candida rugosa*
24	amano S	Seaprose
25	Papain W	*Carica papaya L.*
Novo Nordisk		
26	SP 382	*Candida antarctica* (lipase A + B)
27	SP 435	*Candida antarctica* (lipase B)
28	SP 523	*Mucor miehei*
29	SP 525	*Candida antarctica* (lipase B)
Fluka Chemie AG (Buchs, Switzerland):		
30	lipase from *Rhizopus arrhizus*	*Rhizopus arrhizus*
31	lipase from *Rhizopus niveus*	*Rhizopus niveus*
32	lipase from *Candida lipolytica*	*Candida lipolytica*
33	esterase from hog liver	hog liver
34	protease from *Bacillus subtilis*	*Bacillus subtilis*
35	protease from *B. subtilis var. A.*	*Bacillus subtilis (var. A.)*
36	protease N from *B. subtilis*	*Bacillus subtilis*
37	protease 2A from *Asp. oryzae*	*Aspergillus oryzae*
38	protease 6 from *Asp. niger*	*Aspergillus niger*

Asahi Chemical

39	lipase from *Chrom. visc.*	*Chromobacter viscosum*

Gist Brocades

40	Lipase Puur	*Pseudomonas alcaligenes*

Diversa Corporation (USA, San Diego): all enzymes are from thermophilic microorganisms

41	BD019
42	BD021
43	BD022
44	BD027
45	BD036
46	BD045
47	BD048
48	BD051
49	BD064
50	BD073
51	BD078
52	BD094
53	BD099
54	BD100
55	BD102
56	BD104
57	BD105
58	BD120
59	BD133
60	BD135
61	BD137
62	BD138
63	BD151
64	BD196
65	BD197
66	BD202
67	BD213
68	BD214
69	BD236
70	BD240
71	BD245
72	BD265
73	BD266
74	BD273
75	BD277
76	BD400
77	BD402
78	BD405
79	BD421
80	BD423
81	BD429
82	BD433
83	BD434

84	BD468
85	BD473
86	BD519
87	BD544
88	BD551
89	BD553
90	BD556

ThermoGen (USA, Chicago, IL): all enzymes are from thermophilic microorganisms

91	E001
92	E002
93	E003
94	E004
95	E005
96	E006
97	E007
98	E008
99	E009
100	E010
101	E011
102	E012
103	E013
104	E014
105	E015
106	E016
107	E017b
108	E018b
109	E019
110	E020

self-produced recombinant esterases:

111	*Pseudomonas fluorescens* I
112	*Pseudomonas fluorescens* II
113	*Bacillus stearothermophilus*
114	*Streptomyces diastatochromogenes*

Table S II. Detailed list of the GC-columns used in this study.

ser. no.	specification of the GC-column	supplier
I	Heptakis-(2,3)-di-O-acetyl-6-O-TBDMS-β-cyclodextrin 25 m; 0.25 mm ID	Prof. W. A. König (University of Hamburg; Germany)
II	Heptakis-(2,3,6-tri-O-methyl)-β-cyclodextrin / Polysiloxan 50 m; 0.25 mm ID FS-Cyclodex beta-I/P	CS Chromatographie Service GmbH (Langerwehe; Germany)
III	Heptakis-(2,6-di-O-methyl-3-O-pentyl)-β-cyclodextrin diluted with OV 1701; 25 m; 0.25 mm ID Hydrodex® β-3P	Macherey-Nagel GmbH & Co. KG (Düren, Germany)
IV	Heptakis-(6-TBDMS-2,3-methyl)-β-cyclodextrin diluted with 50 % OV 1701; 25 m; 0.25 mm ID	Prof. W. A. König (University of Hamburg; Germany)

Table S III. Survey about the GC-analysis (columns; temperature programs; retention times) for the determination of the enantiomeric excesses of the compounds investigated.

Sub.	column	temperature program[a]								carrier	retention time enantiomers			
		T 1 [°C]	Iso 1 [min]	Ramp 1 [°C/min]	T 2 [°C]	Iso 2 [min]	Ramp 2 [°C/min]	T 3 [°C]	Iso 3 [min]	[psi]	[min]		[min]	
1a	I	130	10	4	170	5				9	20.9	*R*	21.9	*S*
	II	150	10	5	190	5				15	7.5	*?*	7.7	*?*
	III	130	15	10	170	5				4	12.2	*S*	12.7	*R*
	IV	130	10	4	170	5				9	15.3	*R*	15.8	*S*
1b	I	130	10	4	170	5				9	7.9	*R*	10.9	*S*
	II	150	10	5	190	5				15	10.3	n.r.[b]		
	III	130	15	10	170	5				4	13.4	*?*	13.8	*?*
	IV	130	10	4	170	5				9	4.5	*R*	5.1	*S*
2a	I	32	∞							3	30.8	*?*	33.9	*?*
	II	50	15	5	90	10	10	180	5	8	12.1	*R*	12.3	*S*
2b	I	32	∞							3	47.8	*?*	50.8	*?*
	II	50	15	5	90	10	10	180	5	8	24.9	*S*	25.9	*R*
3a	I	50	30	10	170	5				4	10.2	*S*	11.6	*R*
	II	60	12	10	180	5				12	6.6	*R*	6.9	*S*
3b	I	50	30	10	170	5				4	5.5	*R*	6.9	*S*
	II	60	12	10	180	5				12	8.8	*R*	9.4	*S*
	IV	50	30	10	170	5				4	6.7	*R*	9.7	*S*
3c	I	50	30	10	170	5				4	14.7	*R*	17.2	*S*
	II	60	12	10	180	5				12	17.5	*R*	17.7	*S*
4a	I	80	10	10	110	10	10	170	5	8	17.7	*?*	18.7	*?*
	II	60	12	10	180	5				12	20.2	n.r.		
	III	60	10	5	170	5				10	13.8	n.r.		
	IV	110	15	10	170	5				5	11.3	*S*	12.4	*R*
4b	I	80	10	10	110	10	10	170	5	8	7.0	*?*	8.1	*?*
	II	60	12	10	180	5				12	20.8	*R*	21.0	*S*
	III	60	10	5	170	5				10	14.6	*R*	15.3	*S*
	IV	110	15	10	170	5				5	n.r.			

[a] The temperatures of the injector and detector (FID) are dependend of the GC-device: 200°C, 230 or 250°C, respectively. [b] n.r. = not resolved