

Supplementary Data

This supplementary data is a part of paper entitled “Ability of Ectoine to Stabilize Lipase against Elevated Temperatures and Methanol Concentrations”.

Table S1. Experimental and predicted values of relative activity of lipase to control 1 (lipase without ectoine and incubated at 37 °C)

Run order	Parameter		Specific activity (unit/mg)	Relative activity (%)		
	Ectoine (mM)	Temperature (°C)		Experiment	Prediction	SD
1	88	78	46.43	120	121	4
2	88	60	46.95	122	115	7
3	43	65	46.60	121	127	7
4	132	90	29.85	77	87	7
5	88	95	21.64	56	47	7
6	88	78	45.03	117	121	4
7	150	78	45.21	117	108	7
8	88	78	44.86	116	121	4
9	25	78	40.49	105	98	7
10	88	78	48.17	125	121	4
11	132	65	37.53	97	105	7
12	88	78	48.35	125	121	4
13	43	90	15.88	41	49	7
control 1	0	37	38.57			

*Relative activity = (specific activity of lipase/specific activity of control 1) × 100%

SD = standard deviation

Table S2. Experimental and predicted values of relative activity of lipase to control 2 (lipase without ectoine and incubated at various temperature)

Run order	Parameter		Specific activity (unit/mg)		Relative activity* (%)
	Ectoine (mM)	Temperature (°C)	Tested lipase	Control 2	
1	88	78	46.43	6.28	738.9
2	88	60	46.95	8.73	538.0
3	43	65	46.60	10.82	430.6
4	132	90	29.85	2.44	1221.4
5	88	95	21.64	4.54	476.9
6	88	78	45.03	6.28	716.7
7	150	78	45.21	6.28	719.4
8	88	78	44.86	6.28	713.9
9	25	78	40.49	6.28	644.4
10	88	78	48.17	6.28	766.7
11	132	65	37.53	10.82	346.8
12	88	78	48.35	6.28	769.4
13	43	90	15.88	2.44	650.0

*Relative activity = (specific activity of tested lipase/specific activity of control 2) × 100%

Table S3. Experimental and predicted values of relative activity of lipase to control 1 (lipase without ectoine and incubated in 0% v/v methanol)

Run order	Parameter		Specific activity (unit/mg)	Relative activity* (%)		
	Ectoine (mM)	Methanol (% v/v)		Experiment	Prediction	SD
1	25	65	35.44	55	87	17
2	75	65	99.70	154	154	10
3	75	65	102.23	158	154	10
4	75	90	6.55	10	27	17
5	110	47	89.84	139	158	17
6	40	83	64.90	100	69	17
7	125	65	96.58	150	131	17
8	75	40	72.94	113	109	17
9	75	65	95.61	148	154	10
10	75	65	97.56	151	154	10
11	75	65	101.65	157	154	10
12	40	47	60.75	94	77	17
13	110	83	30.29	47	51	17
control 1	0	0	64.6			

*Relative activity = (specific activity of lipase/specific activity of control 1) x 100%.

SD = standard deviation

Table S4. Experimental and predicted values of relative activity of lipase to control 2 (lipase without ectoine and incubated at various levels of methanol)

Run order	Parameter		Specific activity (unit/mg)		Relative activity* (%)
	Ectoine (mM)	Temperature (°C)	Tested lipase	Control 2	
1	25	65	35.44	22.39	158.3
2	75	65	99.70	22.39	445.3
3	75	65	102.23	22.39	456.6
4	75	90	6.55	0.95	689.0
5	110	47	89.84	45.56	197.2
6	40	83	64.90	16.51	393.1
7	125	65	96.58	22.39	431.4
8	75	40	72.94	68.67	106.2
9	75	65	95.61	22.39	427.0
10	75	65	97.56	22.39	435.7
11	75	65	101.65	22.39	454.0
12	40	47	60.75	45.56	133.3
13	110	83	30.29	16.51	183.4

*Relative activity = (specific activity of tested lipase/specific activity of control 2) x 100%