

Table S1. Standard compounds used for UHPLC-PDA-MS analysis. Linear range was determined at 254 nm.

standard compound	formula	MW (g/mol)	R _t (min)	linear range (μg)	equation	correlation R ²
<i>p</i> -aminophenol	C ₆ H ₇ NO	109.13	1.44-1.52	0.003-0.185	$y = 2 \cdot 10^7 x + 12673$	0.9988
L-DOPA	C ₉ H ₁₁ NO ₄	197.19	2.78-2.97	0.004-0.198	$y = 9 \cdot 10^6 x - 12555$	0.9982
L-Tyrosine	C ₉ H ₁₁ NO ₃	181.19	4.16-4.52	0.003-0.160	$y = 8 \cdot 10^6 x - 2890.4$	0.9966
GHB	C ₁₁ H ₁₄ N ₂ O ₄	238.10	5.15-5.46	0.003-0.142	$y = 1 \cdot 10^8 x + 441882$	0.9961
L-phenylalanine	C ₉ H ₁₁ NO ₂	165.19	7.63-8.06	0.003-0.162	$y = 3 \cdot 10^6 x + 8065.5$	0.9949
catechol	C ₆ H ₆ O ₂	110.10	10.32-10.52	0.004-0.212	$y = 2 \cdot 10^7 x - 20849$	0.9985
<i>p</i> -coumaric acid	C ₉ H ₈ O ₃	164.15	16.40-16.44	0.003-0.154	$y = 5 \cdot 10^7 x + 247625$	0.9911

Table S2. Peak area of phenolic compounds of tolerant and sensitive *A. bisporus* strains.

peak #	CH1_C		CH1_B		CH2_C		CH2_B	
	average	stdev	average	stdev	average	stdev	average	stdev
1	232,130	139,026	363,906	129,156	777,905	752,219	651,920	397,651
2	1,565,760	1,272,759	4,288,490	3,333,767	3,949,661	3,503,424	3,162,219	1,547,899
3	246,100	207,521	1,644,577	1,557,848	235,684		215,329	
4							475,930	
5								
6	28,328,888	9,480,771	48,613,499	24,807,498	45,888,405	19,329,825	50,202,175	16,255,689
7	22,770,787	6,296,362	33,590,377	16,547,344	30,429,326	12,531,604	40,370,211	11,926,844
8	7,095,593	1,410,953	9,902,999	3,118,984	8,798,503	2,073,547	10,158,078	1,367,910
9	7,031,390	1,239,942	16,061,263	2,105,350	9,941,672	2,087,001	11,475,423	1,120,569
10	269,629	137,584	939,196	787,551	707,639	609,570	1,305,413	883,761
11	5,415,341	2,245,821	6,742,857	3,430,526	9,244,330	1,048,768	9,124,315	3,012,586
12	24,097,205	4,316,114	43,514,371	16,855,292	32,516,769	15,583,954	42,519,585	10,813,922
13	7,703,657	2,842,799	12,680,539	6,233,749	8,874,381	4,919,053	11,380,469	4,872,500
14	1,496,729	325,308	2,445,407	915,192	1,812,969	1,261,021	2,337,696	545,707
15	23,097,659	13,285,071	49,227,900	29,375,690	26,961,615	22,528,127	38,556,677	18,537,874
16	1,417,944	719,295	86,018		669,895	900,509	538,519	719,933
17	2,685,456	708,405	5,434,432	1,700,990	5,986,772	1,167,716	6,551,114	1,673,743
18	254,032		4,457,485	6,455,343	1,619,525	830,403	1,672,130	490,780
19	17,378,228	12,192,684	27,578,367	22,940,220	26,596,081	24,750,646	31,308,841	18,473,028
20	437,520	91,490	914,090	168,085	1,291,408	104,076	892,717	86,526
21	1,860,474	1,673,646	3,827,641	3,017,239	6,367,302	487,919	2,624,956	3,685,507
22	3,375,244	949,889	13,852,438	6,197,469	15,610,617	13,169,507	11,537,041	1,601,768
23	1,132,003	263,600	2,286,882	431,925	1,411,573	24,136	1,358,355	
24	1,650,665	442,022	3,117,087	1,338,530	4,415,231	771,554	3,552,108	882,607
25	504,035	359,718	635,644	348,649	1,110,285	519,846	426,410	433,540
26	6,280,632	3,404,399	6,343,457	2,409,587	8,814,865	5,797,552	7,967,143	1,216,630
27	852,777	846,454	1,389,219	1,700,253	1,487,521	1,384,344	1,136,184	942,589
28	1,459,331	357,492	2,668,822	949,333	1,835,286	457,114	2,470,233	531,063
29			739,119	373,727	203,561	51,489	946,545	343,302
30	1,829,602	1,187,040	2,457,208	904,231	1,646,640	219,572	4,085,994	618,281
31	4,555,768	3,261,040	6,447,800	4,011,316	5,967,880	1,075,137	6,760,240	1,330,722
32	1,397,032		1,577,981		5,311,779		1,961,958	
33	496,329	99,096	975,830		623,258	22,219		
34	2,959,603	728,940	778,606	933,322	1,780,572	2,391,098	1,516,046	898,839
total	173,707,382	56,397,191	310,791,558	136,273,148	261,740,514	105,409,787	301,738,062	86,958,883

peak #	CH3_C		CH3_B	
	average	stdev	average	stdev
1	722,548	559,542	942,959	647,848
2	2,967,345	1,674,127	10,299,263	8,711,337
3	3,370,067	2,495,609	10,223,049	2,651,971
4			1,729,815	
5	38,139,625	19,120,577		
6	47,813,000	15,680,234	72,360,474	18,232,048
7	31,753,353	9,250,173	21,014,252	2,154,760
8	8,811,052	1,464,386	10,191,759	1,072,805
9	9,477,472	2,963,323	13,383,804	2,551,157
10	466,010	228,190	1,317,762	882,126
11	6,026,143	6,367,280	19,561,199	3,911,049
12	36,202,002	4,185,701	49,109,828	7,906,483
13	7,934,597	2,444,617	11,168,334	3,179,299
14	2,591,163	201,271	2,930,976	668,836
15	29,153,449	13,688,249	32,882,651	14,403,189
16	33,588		213,225	
17	4,710,211	1,803,705	7,733,151	1,691,649
18	3,074,675	4,305,424	5,885,612	6,608,823
19	29,096,762	21,477,878	12,075,018	3,366,326
20	145,503	291,006	1,371,976	347,437
21	3,529,941	2,694,431	4,176,799	3,609,999
22	7,858,809	5,012,514	13,285,172	1,889,130
23	1,451,488	407,596	1,544,887	113,429
24	2,912,863	625,582	4,424,900	1,698,812
25	659,369	568,092	2,134,519	1,109,729
26	7,852,453	953,174	6,242,990	1,128,100
27	603,724	471,870	1,228,741	828,398
28	1,901,872	385,953	2,609,928	317,037
29			931,648	278,761
30	1,372,625	983,420	4,572,760	1,015,463
31	4,900,253	2,649,063	8,415,484	2,136,608
32	2,113,169			
33	768,015	211,842		
34	720,400	695,798	1,583,160	1,252,184
total	262,245,193	39,709,085	322,813,694	58,305,725

peak #	TO7_C		TO7_B		TW4_C		TW4_B	
	average	stdev	average	stdev	average	stdev	average	stdev
1	733,043	711,213	143,531	137,181	590,695	470,242		
2	12,041,182	10,231,272	18,224,449	16,066,201	1,818,309	533,504	4,315,113	
3	608,958				8,968,087	8,007,690	54,891,113	24,702,720
4					1,713,180		2,312,397	
5								
6	34,965,301	14,677,641	38,880,464	13,147,688	22,519,393	12,592,704	30,676,634	18,684,746
7	22,300,493	9,043,262	26,666,603	11,480,350	19,980,346	3,371,075	15,856,240	2,211,702
8	11,830,559	3,520,942	13,013,174	3,164,196	10,798,976	1,887,441	10,228,021	1,856,768
9	17,794,601	2,823,079	21,250,719	5,162,254	26,631,737	4,263,257	19,177,762	5,034,273
10	392,791	257,572	1,082,768	434,345	159,700	99,667	1,416,695	617,091
11	16,089,456		18,138,266	6,152,910	13,380,411	2,828,977	21,251,256	6,836,436
12	51,080,135	24,233,933	42,336,277	13,089,403	39,638,300	15,975,160	36,863,776	13,893,966
13	11,245,217	7,972,370	12,228,972	5,079,282	12,659,439	7,007,459	10,335,819	4,747,905
14	2,801,932	1,155,980	2,788,132	933,157	2,149,724	175,172	2,359,950	494,030
15	63,235,307	58,668,499	63,501,762	49,588,437	93,963,908	43,472,263	80,319,216	20,877,884
16	1,010,154	1,406,383	1,447,448	205,609	47,533		15,770	
17	5,069,538	1,546,209	9,392,100	3,810,279	4,096,921	699,942	5,845,424	1,493,639
18	1,200,171	784,253	1,997,888	893,137	1,101,368	698,776	2,902,490	1,502,121
19	48,303,856	52,880,703	38,493,688	41,006,158	75,569,609	31,709,628	29,281,435	13,248,746
20	972,917	113,564	1,271,969	1,339,648	597,382		1,448,948	746,048
21	2,102,845	2,843,892	1,516,642	2,040,743	1,917,570	1,475,862	2,394,575	1,457,616
22	12,394,292	2,486,840	34,126,250	11,468,169	16,522,487	4,060,754	17,310,085	4,059,876
23					628,595	73,864	997,386	82,075
24	4,422,627	1,489,009	5,415,667	1,354,232	2,916,748	715,548	3,776,058	1,577,910
25	4,655,133	3,862,320	5,492,132	5,292,493	2,905,102	615,820	17,583,087	7,308,295
26	5,754,572	3,864,329	6,475,594	4,300,276	2,880,926	869,229	1,318,764	276,661
27	2,955,835	3,497,279	4,306,014	2,790,810	3,266,167	2,181,986	3,176,610	1,878,614
28	2,034,871	398,768	2,769,231	669,684	2,409,363	541,381	2,888,765	986,269
29	205,713	199,612	2,906,661	849,989	111,894		2,825,021	690,026
30	5,093,405	2,990,725	6,735,712	3,306,241	4,080,952	321,012	10,298,151	2,399,339
31	5,467,627	2,087,125	6,945,642	2,615,955	6,469,196	1,822,648	11,713,065	1,667,125
32	3,311,403		2,936,681					
33					843,053			
34	569,336	4,085	660,777	402,189	957,166	310,298	1,633,160	1,549,988
total	343,543,748	171,620,572	383,915,943	134,378,583	375,972,395	107,489,739	394,264,578	125,778,152

peak #	WB2_C		WB2_B		WB18_C		WB18_B	
	average	stdev	average	stdev	average	stdev	average	stdev
1	101,405	73,805	625,803	217,268	462,024	156,720	841,949	588,898
2	2,859,525	2,442,042	6,635,297	5,127,306	3,988,731	820,692	6,557,143	7,183,911
3	48,303		1,487,060	1,158,266	1,953,541	891,645	2,451,416	1,686,628
4							130,887	
5								
6	31,180,389	4,120,863	46,943,810	7,204,705	52,626,847	15,081,207	56,164,407	10,972,392
7	22,186,152	10,321,628	20,035,503	2,437,952	17,098,130	2,435,156	24,681,043	4,956,903
8	7,233,083	993,795	12,384,170	1,626,777	13,956,775	2,196,607	15,648,891	2,051,676
9	3,835,824	608,936	5,499,381	1,291,354	11,850,067	6,560,577	15,047,801	3,257,085
10	854,711	541,105	5,302,313	5,982,511	763,054	477,924	998,500	601,679
11	6,731,609	5,478,125	13,915,651	2,343,239	16,878,175	4,657,221	14,203,372	5,162,161
12	25,954,722	4,078,142	36,399,367	5,425,545	74,057,272	29,977,028	48,164,346	2,068,119
13	12,762,609	1,723,029	17,295,988	2,433,730	9,236,271	1,106,199	38,539,066	43,893,745
14	3,139,093	1,236,180	3,892,810	1,312,273	2,320,713	955,329	3,537,772	2,699,482
15	4,797,951	3,150,832	13,188,893	12,125,031	18,470,699	17,459,712	28,431,469	21,708,737
16	490,290	471,208	363,441	143,781	1,115,676	1,553,177	75,101	72,531
17	4,538,589	957,424	9,098,988	1,845,491	9,972,516	3,107,892	11,546,948	3,066,512
18	767,052	363,851	851,112	583,071	5,660,871	1,882,683	3,279,798	1,067,833
19	6,160,159	6,710,590	2,899,564	2,795,976	2,921,322	1,688,201	5,478,429	4,382,708
20	652,552	355,674	1,259,380	181,286	2,322,474	758,205	2,315,348	450,213
21	1,993,352	1,020,463	3,171,287	2,237,320	3,550,223	2,572,314	3,292,023	3,279,449
22	7,653,328	3,782,598	11,251,598	1,622,688	27,667,580	5,231,840	51,421,042	17,570,899
23	1,909,233	232,266	1,637,534	781,225	341,542			
24	2,225,806	571,705	3,433,324	1,003,131	5,523,688	1,668,429	5,672,399	738,421
25	610,223	277,679	1,610,172	411,774	11,085,809	1,765,341	9,192,240	1,336,532
26	5,387,053	1,632,541	5,490,409	3,696,919	9,278,328	3,631,248	8,447,837	1,185,244
27					7,835,081	6,245,499	8,138,369	1,185,503
28	2,555,457	500,764	3,772,713	542,130	2,710,788	491,221	2,658,544	321,605
29			573,927		169,223		3,684,408	570,493
30	4,974,626	332,752	10,615,656	340,361	14,137,039	5,499,521	18,719,554	2,099,227
31	3,511,321	872,095	7,035,781	639,979	10,842,233	2,776,197	11,831,066	1,092,340
32	1,181,550							
33	120,163				137,983			
34	261,290	196,197	1,110,421	314,328	1,346,732	969,906	1,148,744	1,458,614
total	173,413,752	29,311,547	249,492,769	38,188,643	330,881,108	95,869,147	387,020,052	49,744,822

peak #	WB17_C		WB17_B		WB16_C		WB16_B	
	average	stdev	average	stdev	average	stdev	average	stdev
1	635,014	249,290	5,026,512	5,010,292	1,666,500	1,062,188	2,495,562	
2	3,758,757	2,071,784	12,057,373	8,282,792	9,278,539	9,617,838	12,654,362	9,048,219
3	1,578,705	994,508	4,703,209	2,986,042	1,193,541	762,701	3,113,804	2,863,894
4			3,577,177					
5							25,419,744	
6	43,771,184	14,389,062	65,280,106	44,744,393	47,446,980	5,104,804	36,693,918	6,726,944
7	22,020,793	10,479,012	29,895,709	13,339,779	22,313,788	5,442,711	16,653,840	3,783,848
8	9,910,926	2,945,380	14,792,434	5,911,009	11,177,277	2,570,157	9,643,991	1,890,844
9	25,383,671	4,236,984	41,785,952	16,708,732	32,307,601	3,715,547	21,661,631	2,020,150
10	1,055,720	597,469	1,612,477	1,290,600	777,377	276,341	1,177,418	381,839
11	14,597,253	2,018,833	21,508,978	10,321,382	15,752,789	2,117,696	13,825,584	1,322,149
12	28,745,303	5,038,080	34,396,426	14,758,206	43,960,709	8,633,076	42,078,723	9,476,517
13	12,377,114	5,432,381	20,475,125	16,447,256	14,452,960	4,848,306	15,025,352	5,780,594
14	1,666,074	353,180	1,029,356	499,564	2,333,073	1,887,231	1,478,029	1,218,697
15	108,462,230	45,334,744	208,432,629	155,388,071	117,180,548	68,435,247	91,743,038	59,124,810
16	969,491	775,282	3,896,228	3,080,214	502,563	207,326	231,435	280,602
17	4,850,488	1,064,181	10,707,831	4,064,945	5,197,974	4,045,443	6,535,521	2,618,531
18	2,634,017	1,652,868	6,079,297	4,868,788	7,316,355	2,331,026	4,128,336	3,238,296
19	90,509,548	74,184,592	180,789,590	195,251,643	68,192,886	55,451,857	56,093,474	63,566,283
20	2,186,821	127,396	4,304,962	12,546	2,356,807	357,852	1,831,167	50,123
21	2,156,147	2,208,442	1,062,989		1,651,420	1,732,413	2,655,349	2,194,586
22	26,633,169	15,039,271	56,692,616	45,739,207	23,161,601	7,260,183	14,286,530	1,579,121
23			846,176	680,531			844,352	136,621
24	3,568,532	1,907,278	7,537,628	6,160,919	3,382,568	726,308	2,858,539	811,044
25	4,705,317	1,819,302	8,276,823	1,136,418	7,948,702	2,317,724	9,240,867	4,915,877
26	6,258,069	4,297,506	7,778,543	7,267,508	5,851,157	2,769,946	4,826,370	3,428,779
27	1,963,936	1,596,365	10,549,473	4,129,530	2,086,391	1,365,292	2,155,751	1,688,528
28	2,289,531	656,032	3,262,363	2,021,721	1,957,695	248,313	2,498,442	324,663
29	191,366	139,720	3,346,428	1,970,479	316,163	127,118	2,735,774	983,686
30	9,239,868	2,292,806	16,557,861	8,440,645	16,234,991	2,309,070	17,555,385	1,327,332
31	6,668,544	1,524,449	11,964,252	7,384,379	12,058,937	2,402,989	10,156,862	708,817
32			6,227,035					
33			448,856					
34	1,300,406	1,639,589	1,560,306	420,925	979,256		908,117	41,893
total	436,017,751	186,588,078	783,193,367	559,111,655	472,039,238	145,754,634	409,056,875	137,431,715

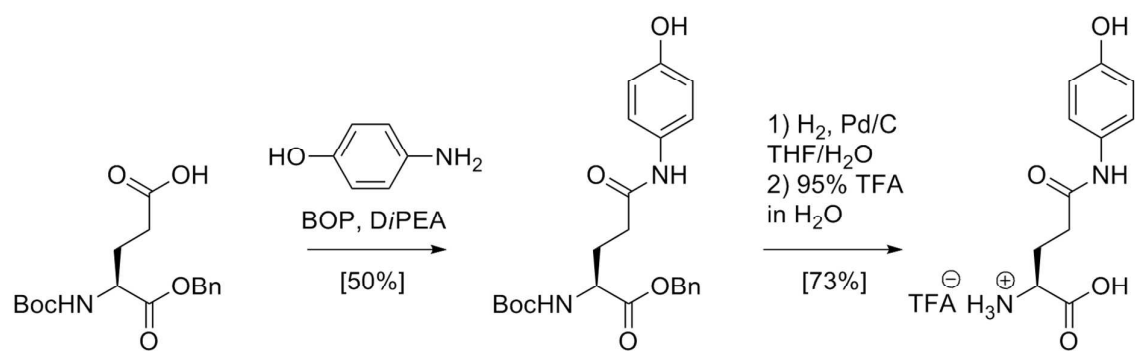


Figure S1. Reaction scheme of GHB synthesis.