

Supplementary table S1. Detailed information on chemical constituents identified in TB-TF by UPLC-MS/MS.

No	detected	tR	Formula	Theoretical	Observed	MS / MS	Identification	Error
				[M - H] ⁻	[M - H] ⁻			
.	in serum	(min)	[M - H] ⁻	[M - H] ⁻	[M - H] ⁻			(ppm)
1		0.97	C ₆ H ₁₂ O ₆	179.05501	179.05629	179.05629 [M - H] ⁻ ,101.02444 [C4H5O3] ⁻ , 89.02444 [C3H5O3] ⁻ ,71.01385 [C3H2O2] ⁻	glucose	7.123
2	*	1.04	C ₇ H ₁₂ O ₆	191.05501	191.05637	191.05637 [M - H] ⁻ , 173.04582 [M - H - H2O] ⁻ , 127.04020 [M - H - CO - 2H2O] ⁻	quinic acid	7.095
3		1.11	C ₆ H ₆ O ₅	133.01314	133.01434	133.01434 [M - H] ⁻ , 115.00372 [M - H2O - H] ⁻	malic acid	8.948
4		1.43	C ₇ H ₁₀ O ₅	173.04444	173.04555	173.04555 [M - H] ⁻ , 154.94753 [M - H - H2O] ⁻	shikimic acid	6.357
5		4.6	C ₆ H ₆ O ₃	125.02332	125.02438	125.02438 [M - H] ⁻	pyrogallol	8.794
6		4.79	C ₇ H ₆ O ₇	201.00297	201.00426	201.00426 [M - H] ⁻ ,154.99870	2,3,4,5,6-pentahydroxybenzoic acid	6.373
7		4.81	C ₁₉ H ₂₈ O ₁₅	493.11879	493.11972	493.11972 [M - H] ⁻ ,463.87796, 331.06790,169.01457	mono-galloyl-diglucose	1.873
8	*	4.76	C ₇ H ₆ O ₅	169.01314	169.01427	169.014217 [M - H] ⁻ , 125.02438[M - H - CO2] ⁻	gallic acid	3.716
9	*	4.83	C ₁₃ H ₁₆ O ₁₀	331.06597	331.06711	271.04596, 211.02507, 169.01425, 125.02454	6-O-galloyl-glucose	3.434
10		5.83	C ₃₄ H ₂₂ O ₂₂	781.05323	781.05389	781.05389 [M - H] ⁻ , 600.99225 [M - H - glc] ⁻	punicalin	0.845

						,300.99915		
11		6.36	C ₃₄ H ₂₄ O ₂₂	783.06754	783.06964	631.05737,450.99387,300.99802	terflavin B	2.681
12		6.6	C ₁₄ H ₁₆ O ₁₀	343.06597	343.06726	343.06726 [M – H]–,	3-galloylquinic acid	3.751
						191.05617 [M – H – galloyl]–,		
						169.01398		
13		6.76	C ₃₄ H ₂₂ O ₂₂	781.05323	781.05396	781.05396 [M – H]– ,	emblicanin	0.934
						600.99249 [M – H –		
						glc]–,300.99875,		
						173.02310 [M – H – galloyl –		
						galloyl – HHDP]–		
14	*	7.26	C ₁₃ H ₁₆ O ₁₀	331.06597	331.06717	271.04611, 211.02499,	2-O-galloyl-glucose	3.615
						169.01437, 125.02448		
15		8.89	C ₇ H ₆ O ₄	153.01823	153.01939	153.01939,109.02950, 81.03447	protocatechuic acid	3.751
16	*	10.02	C ₁₃ H ₁₆ O ₁₀	331.06597	331.06726	271.04480, 211.02374,	1-O-galloyl-glucose	3.887
						169.01421, 125.02437		
17		10.36	C ₁₉ H ₁₂ O ₇	243.04992	243.05104	243.05104 [M – H]–,	1-O-galloyl-glycerol	3.525
						169.01430 [M – H – CO2 –		
						2CH3]–,		
						125.02443 [M – H – 2CO2 –		
						2CH3]–		
18		12.05	C ₂₇ H ₂₂ O ₁₈	633.07224	633.07373	633.07343 [M – H]–,	HHDP-galloylglucose	1.880
						463.05231 [M – galloyl – H –		
						H2O]–,		
						300.99899 [M – H – galloyl –		
						H2O – Hex]–		
19	*	12.21	C ₂₅ H ₂₀ O ₁₄	483.07693	483.07816	331.06741, 313.05658,	3,6-bis-O-galloyl-glucose	2.605
						271.04599, 211.02490,		

					169.01424			
20	*	12.24	C ₁₂ H ₁₄ O ₈	285.06049	285.06152	267.05130, 133.01428	uralenneoside	3.600
21		12.56	C ₂₆ H ₁₈ O ₁₄	481.06128	481.06213	481.06213 [M – H]–, 331.06760	HHDP-glucose	2.346
					301.07080 [M – H – C ₆ H ₁₂ O ₆]–			
22		13.04	C ₂₇ H ₂₂ O ₁₈	633.07224	633.07336	633.07336 [M – H]–,	isostrictinin	0.825
					483.07700 [M – galloyl – H]–,			
					300.99918 [M – H – galloyl –			
					H ₂ O – Hex]–			
23		13.62	C ₄₁ H ₂₈ O ₂₇	951.07294	951.07532	951.07532 [M – H]–,	geraniin	2.502
					481.06268 [M – galloyl – H]–,			
					300.99908 [M – H – galloyl –			
					H ₂ O – HHDP]–,			
					275.01993 [M – H – galloyl –			
					H ₂ O – HHDP – CO ₂]–			
24		13.83	C ₄₈ H ₂₈ O ₃₀	1083.05816	1083.05908	1083.05908 [M – H]–,	punicalagin A	1.835
					781.05353 [M – H – ellagic			
					acid]–,			
					600.99017 [M – H – ellagic acid			
					– glc]–,300.99884			
25		14.13	C ₂₇ H ₂₈ O ₂₀	669.09336	669.09583	669.09583 [M – H]–,	phyllanemblinin D	3.974
					337.02020 [M – H – galloyl –			
					H ₂ O – Hex]–			
26	*	14.35	C ₈ H ₆ O ₅	183.02879	183.03001	183.03001 [M – H]–,	methyl gallate	6.448
					168.00650 [M – H – CH ₃]–,			
					124.01662 [M – H – CH ₃ –			
					CO ₂]–			
27		14.96	C ₁₉ H ₁₈ O ₉	341.08670	341.08780	341.08670 [M – H]–,281.06671,	caffeic acid-3-glucoside	3.2

						179.03519 [M – H– glc]–		
28	*	15.12	C ₂₆ H ₂₀ O ₁₄	483.07693	483.07837	483.07837, 331.06796, 313.05676, 271.04620, 211.02492, 169.01430, 125.02444	1,4-bis-O-Galloyl-glucose	2.978
29		15.64	C ₂₇ H ₂₀ O ₁₇	615.06167	615.06366	615.06366 [M – H]–, 463.03073 [M – H – galloyl] –	phyllanemblinin A	3.235
30		16.03	C ₂₇ H ₂₂ O ₁₈	633.07224	633.07397	633.07397 [M – H]–, 483.08102 [M – galloyl – H]–, 465.06799 [M – galloyl – H ₂ O – H]–, 300.99924 [M – H – galloyl – H ₂ O – HHDP]–, 275.02014 [M – H – galloyl – H ₂ O – HHDP – CO ₂]–	phyllanemblinin B	2.732
31		16.15	C ₄₈ H ₃₀ O ₃₀	1085.07381	1085.07532	783.06989,633.07385,450.99466 ,	terflavin A	1.391
32	*	16.44	C ₂₇ H ₂₄ O ₁₈	635.08789	635.08936	483.07858, 465.06760, 313.05673, 271.04590, 169.01431, 125.02442	1,4,6-tri-O-galloyl-glucose	2.314
33		16.45	C ₁₄ H ₁₀ O ₉	321.02410	321.02518	321.02518 [M – H]–, 169.01431 [galloyl]–,125.02443	digallate	3.338
34		16.55	C ₂₆ H ₁₈ O ₁₅	495.07693	495.07822	495.07822 [M – H]–, 343.06723 [M – H – galloyl]–, 191.05635 [M – H – galloyl – galloyl]–, 169.01433	mucic acid lactone digallate	2.602

35		16.65	C ₂₆ H ₂₀ O ₁₄	483.07693	483.07849	483.07849 [M – H]–, 331.06714 [M – H – galloyl]–, 313.05679 [M – H – galloyl – H ₂ O]–, 271.04611, 193.01453, 169.01431	digalloylglucose	3.229
36	*	16.75	C ₂₆ H ₁₈ O ₁₄	483.07690	483.07840	313.05679, 271.04611, 211.02489, 169.01431, 125.02444	1,6-bis-O-galloyl-glucose	3.040
37		17.02	C ₃₄ H ₂₆ O ₂₂	785.08319	785.08490	785.08490 [M – H]–, 633.07239 [M – H – galloyl]–, 463.05145 [M – H – galloyl – galloyl – H ₂ O]–, 300.99902	digalloyl-HHDP-glucose	2.178
38		17.05	C ₄₁ H ₃₀ O ₂₇	953.08907	953.09052	953.09052 [M – H]–, 633.07581, 483.07773, 300.99905	chebulagic acid	1.521
39		18.12	C ₄₁ H ₃₂ O ₂₈	971.09963	971.10150	953.09106 [M – H – H ₂ O]–, 633.07404, 300.99921	neочеbulagic acid	1.167
40	*	18.52	C ₁₃ H ₈ O ₈	291.01354	291.01492	247.02493, 219.02985, 203.03566, 191.03526, 175.03996	brevifolin carboxylic acid	4.730
41		18.68	C ₄₁ H ₃₀ O ₂₇	953.08907	953.09076	953.09076 [M – H]– , 463.05273, 300.99911	terchebin	5.033
42		18.74	C ₂₈ H ₂₈ O ₂₀	683.10901	683.11096	683.11096 [M – H]–, 513.09058 [M – H – gallic]–, 351.03516 [M – H – galloyl – gallic]–, 337.06027, 169.01430	methyl neochebularin	4.121
43		19.02	C ₄₈ H ₂₈ O ₃₀	1083.05816	1083.05969	1083.05969 [M – H]–, 781.05347 [M – H – ellagic	punicalagin B	1.413

					acid]-,			
					600.99225 [M – H – ellagic acid			
					– glu]-,300.99899			
44		19.16	C ₁₉ H ₁₄ O ₆	289.07066	289.07172	245.00902, 179.03447,	catechin	3.98
						161.02448, 151.00359		
45	*	19.18	C ₂₇ H ₂₄ O ₁₉	651.08280	651.08453	651.08453 [M – H]-,	chebularin	4.139
						633.07825 [M – H – H ₂ O]-,		
						499.07297 [M – H –		
						galloyl]-,337.02078,319.00928,2		
						75.02005		
46	*	19.33	C ₂₇ H ₂₄ O ₁₈	635.08789	635.08887	465.06787, 313.05695,	3,4,6-tri-O-galloyl-glucose	1.543
						300.00027, 275.02020,		
						169.01434, 125.02445		
47	*	19.42	C ₂₇ H ₂₂ O ₁₈	633.07224	633.07343	633.07343 [M – H]-,	corilagin	0.975
						463.05179 [M – galloyl – H ₂ O –		
						H]-,		
						300.99918 [M – H – galloyl –		
						H ₂ O – Hex]-,		
48		19.66	C ₁₉ H ₁₄ O ₇	305.06558	305.06693	305.06693 [M – H]-,	gallocatechin	4.428
						215.01003 [M – H – CH ₃ COOH		
						– 2CH ₃]-		
49	*	19.81	C ₂₇ H ₂₄ O ₁₈	635.08789	635.08917	483.07840, 465.06760,	1,3,6-tri-O-galloyl-glucose	2.015
						313.05716, 271.04620,		
						211.04552, 169.01439,		
						125.02447		
50		19.93	C ₂₁ H ₁₈ O ₁₃	477.06636	477.06766	477.06766,	quercetin 3-O-β-D-glucuronide	3.276
						300.99857,173.02443,169.01433		

						,125.02441		
51	*	20.06	C ₉ H ₁₀ O ₅	197.04444	197.04558	197.04558 [M – H]–,	ethyl gallate	5.735
						169.01434 [M – H – 2CH ₂]–,		
						125.02445 [M – H – 2CH ₂ –		
						COOH]–		
52		20.32	C ₄₁ H ₃₀ O ₂₆	937.09415	937.09570	937.09570 [M – H]–,	trigalloyl-HHDP-glucose	1.654
						785.08118 [M – galloyl – H]– ,		
						635.08508 [M – galloyl – galloyl		
						– H]–,		
						465.06876 [M – H –		
						3galloyl]–,300.99918		
53		20.72	C ₄₁ H ₃₄ O ₂₈	973.11528	973.11749	973.11749 [M – H]–, 955.10577	neochebulinic acid	2.271
						[M – H – H ₂ O]–, 821.10571 [M		
						– H – galloyl]–,		
						668.03387 [M – H –		
						2galloyl]–,337.02042,		
						319.00943,293.03021		
54		21.44	C ₁₅ H ₁₄ O ₆	289.07066	289.07161	245.00905, 161.02457,	epicatechin	4.203
						151,00311		
55	*	23.48	C ₃₄ H ₂₈ O ₂₂	787.09885	787.09973	617.07874,	1,2,3,4-tetragalloylglucose	1.120
						465.06750,313.05658,		
						169.01428, 125.02440		
56		23.83	C ₃₄ H ₂₈ O ₂₂	787.09884	787.10046	787.10046 [M – H]–,	tetragalloylglucose	2.058
						635.08893 [M – H – galloyl]–,		
						483.07501 [M – H – 2galloyl]–,		
						331.06903 [M – H – 3galloyl]–		
57		24.17	C ₄₁ H ₃₀ O ₂₇	953.08907	953.09094	953.09094 [M – H]–	galloyl chebuloyl -HHDP glucose	1.257

					.633.07446,463.05249,300.9991		
					5		
58	24.9	C ₄₂ H ₃₄ O ₂₈	985.11528	985.11725	985.11725 [M – H]–,	methyl neochebulagate	3.309
					633.07416 [M – H – galloy –		
					gallic]–,		
					351.03586 [methyl neochebulate		
					– H – H ₂ O]–,		
					337.02087,319.00964,300.99915		
					.275.01993		
59	25.09	C ₃₄ H ₂₈ O ₂₃	803.09376	803.09564	803.09564 [M – H]–,	digalloylchebuloylglucose	2.341
					651.08856 [M – H – galloyl]–,		
					633.07343 [M – H – gallic]–,		
					481.06360 [M-galloy-gallic] –,		
					337.02042,319.00983,275.02005		
60	26.08	C ₂₂ H ₃₂ O ₁₂	477.10275	477.10431	477.10431 [M – H]–,	isorhamnetin-7-O-glucopyranoside	3.265
					433.12015 [M – CO ₂ – H]–		
61	27.14	C ₄₁ H ₃₂ O ₂₆	939.10980	939.10944	787.09943 [M – H – galloyl]–,	pentagalloylglucose	2.096
					635.08899 [M – H – 2galloyl]–,		
					483.07681 [M – H – 3galloyl]–,		
					465.06656		
					179.03482 [M – H – 5galloyl] –		
62	28.21	C ₂₁ H ₂₀ O ₁₀	431.09727	431.09866	341.06674, 323.05685,	vitexin	3.217
					311.05627, 283.06140,		
					269.04459, 117.03474		
63	28.22	C ₄₂ H ₃₀ O ₂₈	987.13093	987.13251	351.03622,319.00977,	methyl neochebulinate	1.601
					293.03061,275.02020,		
					169.01434		

64		28.26	C ₁₉ H ₂₀ O ₄	263.12778	263.12885	263.12885 [M – H]–,	abscisic acid	4.045
						219.13948 [M – H– CO ₂]–,		
						204.11507 [M – H – CO ₂ –		
						CH ₃]–		
65	*	28.29	C ₂₂ H ₂₀ O ₁₃	491.08202	491.08322	328.02283, 312.99939,	3,3'-di-O-methyl ellagic acid 4'-glucoside	2.450
						297.97577, 285.00449,		
						169.01436		
66		28.33	C ₂₁ H ₃₂ O ₂₇	955.10472	955.10590	955.10590 [M – H]–,	chebulinic acid	1.235
						803.09589 [M – galloyl]–,		
						651.08203 [M – 2galloyl]–,		
						633.07373 [M-galloyl-gallic]–,		
						337.02048, 319.00983,		
						293.03067, 275.02005		
67		28.91	C ₂₁ H ₂₀ O ₁₂	463.08710	463.08881	463.08881 [M – H]–,	quercetin hexose	3.687
						301.03476 [M – H – hexose]–		
68		28.91	C ₁₈ H ₁₄ O ₁₂	433.04015	433.04160	433.04160 [M – H]–, 300.99878	ellagic acid pentose	3.343
						[M – H – pent]–		
69		28.99	C ₂₇ H ₃₀ O ₁₆	609.14501	609.14679	609.14679 [M – H]–,	rutin	2.922
						300.02750 [M – glc – rha – H]–		
70	*	29.73	C ₁₄ H ₆ O ₈	300.99789	300.99905	300.99905 [M – H]–,	ellagic acid	3.842
						283.99637 [M – H – H ₂ O]–,		
						257.00949 [M – H – CO ₂]–		
71		30.60	C ₂₁ H ₂₀ O ₁₁	447.09287	447.09384	447.09384 [M – H]–,	luteolin-7-galactoside	2.169
						285.04037 [M – H – Glc]–,		
						299.99185 [M – H – deoxyhex]–		
72		30.75	C ₂₇ H ₃₀ O ₁₅	593.15009	593.15192	593.15192 [M – H]–,	nicotiflorin	3.074
						285.04019 [M – glc – rha – H]–		

73		30.81	C ₁₂ H ₂₀ O ₅	243.12270	243.12376	243.12376 [M – H]–,	oxododecanedioic acid	4.359
						225.11362 [M – H – H ₂ O]–,		
						207.10294 [M – H – 2H ₂ O]–		
74		30.90	C ₂₀ H ₁₈ O ₁₂	447.05580	447.05734	447.05734 [M – H]–, 300.99936	ellagic acid deoxyhexose	3.44
75	*	30.97	C ₂₀ H ₁₈ O ₁₂	447.05580	447.05707	315.01486, 299.99127,	ducheside A	2.836
						270.98856, 242.99380		
76	*	31.44	C ₂₁ H ₁₈ O ₁₂	461.07145	461.07285	446.04990, 328.02271,	3,3'-di-O-methyl-4-O-xylopyranosyl-ellagic	3.031
						312.99924, 297.97565,	acid	
						285.00446		
77	*	31.96	C ₁₉ H ₈ O ₈	315.01354	315.01480	299.99127, 216.00641	methyl ellagic acid	3.988
78	*	32.60	C ₁₉ H ₁₂ O ₅	271.06010	271.06128	242.99113, 229.99255,	naringenin	2.330
						204.98969		
79		32.63	C ₁₉ H ₁₀ O ₇	301.03427	301.03561	301.03561 [M – H]–,	quercetin	4.421
						254.98836 [M – H – H ₂ O –		
						CO]–,		
						214.99365 [M – H – 2CH ₃ –		
						CO]–		
80		33.04	C ₁₈ H ₁₈ O ₄	201.11213	201.11340	201.11340 [M – H]–, 183.10266	sebacic acid	6.287
						[M – H – H ₂ O]–		
81	*	33.55	C ₂₇ H ₂₀ O ₁₆	599.06676	599.06854	315.01492, 300.99643,	2-(4-O-galloyl-xylopyranosyloxy)-3-	2.055
						169.01428	methoxy-7,8-dihydroxy -	
							[1]benzopyrano[5,4,3-cde][1]benzopyra-	
							5,10-dione	
82	*	33.84	C ₁₈ H ₁₀ O ₈	329.02919	329.03049	314.00714 [M – H – CH ₃]–,	3,3'-di-O-methylellagic acid	3.951
						285.00406 [M – H – CO ₂]–		
83		35.35	C ₁₁ H ₂₀ O ₄	215.12778	215.12895	215.12895 [M – H]–,	undecanedioic acid	5.439
						197.11847 [M – H – H ₂ O]–,		

					153.12862 [M – H – H ₂ O –		
					CO ₂]-		
84	36.07	C ₁₂ H ₂₀ O ₄	227.12778	227.12906	227.12906 [M – H]-,	traumatic acid	5.635
					183.13913 [M – H – CO ₂]-,		
					165.12859 [M – H – CO ₂ –		
					H ₂ O]-		
85	37.23	C ₂₀ H ₄₀ O ₆	503.33671	503.33826	503.33826 [M – H]-, 485.32843,	arjungenin	3.079
					458.33585		
86	*	C ₁₇ H ₂₆ O ₄	293.17474	293.17612	236.10562, 221.15471,	6-gingerol	2.851
					205.12276, 192.11588,		
					178.99271		
87	42.56	C ₁₈ H ₃₆ O ₄	315.25298	315.25415	315.25415 [M – H]-,	dihydroxystearic acid	3.692
					297.24393 [M – H – H ₂ O]-,		
					254.98744 [M – H – H ₂ O –		
					CO ₂]-		
88	43.1	C ₁₈ H ₃₀ O ₃	293.21112	293.21243	293.21243 [M – H]-,	kamlolenic acid	4.463
					274.99298 [M – H – H ₂ O]-,		
					230.98535 [M – H – H ₂ O –		
					CO ₂]-		
89	47.38	C ₁₈ H ₃₂ O ₂	255.23185	255.23303	255.23303 [M – H]-, 236.99696	palmitic acid	4.597
					[M – H – H ₂ O]-		
90	□	C ₁₈ H ₃₆ O ₂	283.26315	283.26425	283.26425 [M – H]-, 264.99008	stearic acid	3.859
					[M – H – H ₂ O]-, 214.99371 [M –		
					H – CH ₂ =CH ₂ – CO ₂]-		

Supplementary table S2. The overlaps of putative targets of TB-TF HCC-related human genes.

No.	Target symbol	No.	Target symbol	No.	Target symbol	No.	Target symbol
1	ABCB1	67	CX3CR1	133	JAK2	199	PPARD
2	ABCC1	68	CXCR2	134	JAK3	200	PPARG
3	ABCG2	69	CYP17A1	135	KDR	201	PRKACA
4	ACHE	70	CYP19A1	136	KIF11	202	PRKCB
5	ACLY	71	CYP1A2	137	KIT	203	PRKCE
6	ADA	72	CYP1B1	138	LCK	204	PRKCG
7	ADK	73	CYP2C9	139	LDHA	205	PRKDC
8	ADORA1	74	CYP3A4	140	LDHB	206	PTAFR
9	ADORA3	75	DNMT1	141	LGALS3	207	PTGER1
10	ADRA2C	76	DPP4	142	LGALS9	208	PTGER2
11	AHCY	77	DRD2	143	LNPEP	209	PTGER4
12	AHR	78	DUT	144	MAOA	210	PTGES
13	AKR1B1	79	EGFR	145	MAOB	211	PTGIR
14	AKR1B10	80	EPHB4	146	MAP2K1	212	PTGS1
15	AKR1C3	81	EPHX2	147	MAP3K8	213	PTGS2
16	AKT1	82	ERBB2	148	MAPK1	214	PTK2
17	AKT3	83	ERN1	149	MAPK3	215	PTPN1
18	ALK	84	ESR1	150	MB	216	PTPN2
19	ALOX12	85	ESR2	151	MCL1	217	PTPN22
20	ALOX15	86	ESRRA	152	MET	218	PTPRC
21	ALOX5	87	ESRRB	153	MGAM	219	RAC1
22	ALPL	88	F10	154	MGLL	220	RARA
23	AMY1A	89	F3	155	MIF	221	RARG

24	APOBEC3G	90	FABP2	156	MMP12	222	RELA
25	APP	91	FABP4	157	MMP13	223	RET
26	AR	92	FABP5	158	MMP2	224	RIPK2
27	AURKA	93	FDFT1	159	MMP3	225	RORA
28	AURKB	94	FGF1	160	MTAP	226	RPS6KA3
29	AXL	95	FGF2	161	MTOR	227	RXRA
30	BCHE	96	FGFR1	162	NCOR2	228	RXRB
31	BCL2	97	FGR	163	NEK2	229	RXRG
32	BCL2L1	98	FHIT	164	NOS2	230	S1PR1
33	BRAF	99	FLT3	165	NOS3	231	S1PR2
34	CA1	100	FLT4	166	NOX4	232	SERPINA6
35	CA2	101	FUCA1	167	NPC1L1	233	SERPINE1
36	CA3	102	FUT7	168	NQO2	234	SHBG
37	CA9	103	G6PD	169	NR1H4	235	SIGMAR1
38	CASP8	104	GABBR1	170	NR2F2	236	SIRT1
39	CASP9	105	GPBAR1	171	NR3C1	237	SIRT2
40	CBR1	106	GPR35	172	NTRK1	238	SLC29A1
41	CCNA1	107	GSK3A	173	NUAK1	239	SLC5A1
42	CCNA2	108	GSK3B	174	P2RY2	240	SLC5A2
43	CCNB1	109	GSR	175	PARP1	241	SLC6A2
44	CCNC	110	GYS1	176	PDE3A	242	SNCA
45	CCND1	111	HDAC3	177	PDGFRA	243	SQLE
46	CCNE1	112	HDAC4	178	PDGFRB	244	SRC
47	CCNH	113	HK1	179	PDK1	245	SYK
48	CDC25A	114	HK2	180	PDPK1	246	TEK
49	CDC25B	115	HMGCR	181	PGF	247	TERT
50	CDK1	116	HNF4A	182	PIK3CA	248	THRB

51	CDK2	117	HPSE	183	PIK3CB	249	TLR9
52	CDK4	118	HSD11B1	184	PIK3CG	250	TNF
53	CDK5	119	HSD11B2	185	PIM1	251	TNKS2
54	CDK5R1	120	HSD17B1	186	PIM2	252	TOP1
55	CDK7	121	HSD17B2	187	PIM3	253	TPMT
56	CDK9	122	HSP90AA1	188	PLA2G1B	254	TTR
57	CES1	123	HSP90AB1	189	PLA2G2A	255	TYK2
58	CES2	124	HSPA1A	190	PLAT	256	TYMP
59	CHEK1	125	HSPA5	191	PLAU	257	UGT2B7
60	CHEK2	126	HSPA8	192	PLIN1	258	VCP
61	CHRNA7	127	IGF1R	193	PLK1	259	VDR
62	CNR1	128	IGFBP3	194	PLK4	260	VEGFA
63	CNR2	129	IL2	195	PNP	261	WEE1
64	COMT	130	INSR	196	POLA1	262	WNT3A
65	CSNK2A1	131	ITK	197	POLB	263	XDH
66	CTSL	132	JAK1	198	PPARA	264	YWHAG

Supplementary table S3. The overlaps of putative targets of TB-TF and tumor immune-related targets.

No.	Target symbol	No.	Target symbol	No.	Target symbol	No.	Target symbol
1	ADORA3	14	AR	27	ERBB2	40	PTPN2
2	PTGS2	15	PTGER2	28	HSPA1A	41	MET
3	PTGS1	16	HSP90AA 1	29	KIT	42	AXL
4	CXCR2	17	PTGER4	30	MIF	43	LGALS9
5	TLR9	18	BRAF	31	IGF1R	44	KDR
6	LNPEP	19	TYK2	32	PTK2	45	CCNB1
7	TOP1	20	MAPK1	33	BCL2	46	JAK1
8	NOS2	21	FOLH1	34	CNR2	47	ABCC1
9	FGF2	22	CA9	35	TEK	48	JAK2
10	TERT	23	CX3CR1	36	ITK	49	JAK3
11	DPP4	24	VEGFA	37	LGALS3	50	IL2
12	PIK3CG	25	TNF	38	MAP2K1		
13	EGFR	26	ADORA2A	39	FLT3		

Supplementary table S4. The calibration curves (Y- peak area, X- concentration in mg/mL), correlation coefficients (*r*), test ranges and the contents of three chemical components in TB-TF.

No.	Name	Calibration curves	<i>r</i>	Test ranges (ug/ml)	Contents (%)
1	gallic acid	$Y = 6.25e7 \cdot X + 6.82e4$	0.9997	16.56~207	7.35
2	corilagin	$Y = 3.96e7 \cdot X + 5.28e3$	0.9999	0.42~21	2.1
3	ellagic acid	$Y = 1.88e8 \cdot X - 5.35e4$	0.9998	3.57~44.6	2.18