

Supplementary data to:

Original article:

**SYNERGISTIC EFFECTS OF METFORMIN AND CURCUMIN ON
CYTOTOXICITY OF CHEMOTHERAPY DRUGS USING A GASTRIC
CANCER CELL LINE MODEL**

Ehsan Zarei , Youssof Sefidi-Heris, Iraj Saadat * 

Department of Biology, College of Sciences, Shiraz University, Shiraz, Iran

* **Corresponding author:** Iraj Saadat, Department of Biology, College of Sciences,
Shiraz University, Shiraz 71467-13565, Iran. Tel: +98 71 36137435,
E-mail: isaadat@shirazu.ac.ir

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Raw data of Figure 1A:

Cell viability of AGS cells exposed to metformin for 24, 48, 72, 96 hours. In each independent biological replication, cell viability was normalized by untreated control cell culture.

Time	Replicate	Metformin concentration (mM)										
		0*	0.625	1.25	2.5	5	10	20	40	80	160	320
24 h	1	1	0.994	0.977	0.969	1.010	0.863	0.883	0.779	0.713	0.414	0.107
	2	1	1.011	1.005	1.025	0.941	0.924	0.893	0.750	0.695	0.469	0.162
	3	1	0.997	1.027	0.945	0.959	0.902	0.826	0.697	0.615	0.414	0.160
48 h	1	1	1.014	0.960	0.942	0.895	0.845	0.717	0.667	0.454	0.337	0.115
	2	1	0.988	0.986	0.935	0.951	0.794	0.772	0.585	0.490	0.342	0.131
	3	1	0.986	0.971	0.981	0.900	0.828	0.792	0.604	0.532	0.312	0.064
72 h	1	1	0.958	0.931	0.927	0.900	0.733	0.576	0.381	0.324	0.195	0.068
	2	1	0.976	0.915	0.866	0.833	0.729	0.536	0.373	0.296	0.200	0.045
	3	1	0.987	0.940	0.892	0.876	0.698	0.495	0.349	0.255	0.178	0.015
96 h	1	1	0.507	0.321	0.347	0.314	0.200	0.129	0.129	0.044	0.044	0.044
	2	1	0.466	0.371	0.341	0.316	0.178	0.113	0.118	0.083	0.011	0.000
	3	1	0.470	0.358	0.326	0.230	0.147	0.088	0.023	0.026	0.032	0.014

*: Factor values examined were normalized to a dose of zero (control, untreated) and considered as one factor.

Raw data of Figure 1B:

Cell viability of AGS cells exposed to curcumin for 24, 48, 72, and 96 hours. In each independent biological replication, cell viability was normalized by untreated control cell culture.

Time	Replicate	Curcumin concentration (μM)											
		0	0.5	1.0	2.0	4.0	8.0	16	32	64	128	256	512
24 h	1	1	0.938	1.014	0.984	0.984	0.985	0.861	0.629	0.282	0.212	0.120	0.064
	2	1	1.016	1.001	0.994	0.999	0.957	0.839	0.675	0.367	0.174	0.071	0.043
	3	1	1.061	0.997	1.006	0.978	0.933	0.844	0.693	0.340	0.192	0.098	0.028
48 h	1	1	0.950	0.988	0.941	0.879	0.782	0.558	0.311	0.145	0.042	0.025	0.022
	2	1	1.020	0.995	0.965	0.913	0.845	0.598	0.342	0.156	0.051	0.019	0.019
	3	1	1.028	1.011	1.015	0.979	0.838	0.653	0.403	0.219	0.051	0.019	0.010
72 h	1	1	0.962	0.941	0.924	0.773	0.626	0.338	0.109	0.018	0.005	0.023	0.003
	2	1	1.033	0.988	0.955	0.799	0.639	0.367	0.111	0.004	0.005	0.004	0.002
	3	1	0.994	0.974	0.949	0.847	0.562	0.352	0.093	0.004	0.011	0.002	0.008
96 h	1	1	1.033	0.988	0.963	0.813	0.559	0.149	0.024	0.023	0.018	0.023	0.001
	2	1	0.994	0.974	0.936	0.748	0.539	0.060	0.018	0.004	0.009	0.004	0.001
	3	1	0.996	0.968	0.949	0.781	0.549	0.104	0.021	0.009	0.004	0.009	0.001

Raw data of Figure 1C:

Cell viability of AGS cells exposed to combination of metformin and curcumin for 48 hours. In each independent biological replication, cell viability was normalized by untreated control cell culture.

Replicate	Metformin (mM) + Curcumin (µM) concentrations										
	0	0.625+0.5	1.25+1	2.5+2	5+4	10+8	20+16	40+32	80+64	160+128	320+256
1	1	0.732	0.720	0.657	0.632	0.456	0.310	0.159	0.056	0.010	0.017
2	1	0.738	0.739	0.714	0.584	0.439	0.242	0.214	0.007	0.070	0.006
3	1	0.766	0.738	0.684	0.622	0.414	0.289	0.140	0.044	0.024	0.061

Raw data of Figure 1D:

Cell viability of AGS cells exposed to combination of metformin and curcumin for 72 hours. In each independent biological replication, cell viability was normalized by untreated control cell culture.

Replicate	Metformin (mM) + Curcumin (µM) concentrations										
	0	0.625+1	1.25+2	2.5+4	5+8	10+16	20+32	40+64	80+128	160+256	320+512
1	1	0.593	0.612	0.600	0.563	0.449	0.171	0.075	0.029	0.014	0.011
2	1	0.656	0.618	0.597	0.547	0.379	0.163	0.062	0.036	0.008	0.005
3	1	0.600	0.590	0.572	0.512	0.427	0.148	0.047	0.006	0.004	0.001

Raw data of Figure 2A:

Migration of AGS cells treated with metformin, curcumin and their combination for 24, 48, and 72 hours in three independent replications was examined through wound healing assay by the aid of ImageJ software.

Treatment	Repli- cate	Time											
		0 h			24 h			48 h			72 h		
		Scratch area (Mega pixels)	Scratch area ratio*	Wound clo- sure**	Scratch area (Mega pixels)	Scratch area ratio*	Wound clo- sure**	Scratch area (Mega pixels)	Scratch area ratio*	Wound clo- sure**	Scratch area (Mega pixels)	Scratch area ratio*	Wound clo- sure**
Control	1	2.069	1	0	1.429	0.690	0.310	0.662	0.320	0.680	0.035	0.017	0.983
	2	2.069	1	0	1.316	0.636	0.364	0.621	0.300	0.700	0.033	0.016	0.984
	3	2.097	1	0	1.419	0.677	0.323	0.753	0.359	0.641	0.041	0.020	0.980
0.6 mM Metformin	1	1.915	1	0	1.314	0.686	0.314	0.971	0.507	0.493	0.560	0.292	0.708
	2	2.112	1	0	1.350	0.639	0.361	0.883	0.418	0.582	0.524	0.248	0.752
	3	2.013	1	0	1.409	0.700	0.300	0.927	0.460	0.540	0.643	0.319	0.681
1 μ M Curcumin	1	2.093	1	0	1.419	0.678	0.322	0.965	0.461	0.539	0.215	0.103	0.897
	2	2.208	1	0	1.496	0.677	0.323	0.934	0.423	0.577	0.264	0.120	0.880
	3	2.092	1	0	1.446	0.691	0.309	0.901	0.431	0.569	0.229	0.109	0.891
0.6 mM Met- formin + 1 μ M Curcu- min	1	2.212	1	0	1.510	0.683	0.317	1.195	0.540	0.460	0.952	0.430	0.570
	2	2.251	1	0	1.529	0.679	0.321	1.123	0.499	0.501	1.037	0.461	0.539
	3	2.059	1	0	1.444	0.702	0.298	1.258	0.611	0.389	1.109	0.539	0.461

* Scratch area ratio in each treatment group = Scratch area at any time \div Scratch area at 0 h.

** Wound closure= 1- Scratch area ratio

Raw data of Figure 2B and 2C:

Cell migration and invasion were inspected via transwell method (without matrigel and with matrigel coating, respectively) 24 hours after treatment with metformin, curcumin and their combination. The colony formation of AGS cells treated with metformin, curcumin and their combination after 12 days were evaluated by counting the number of colonies.

Treatment	Replicate	Migrated cell	Invaded cell	Formed colony
Control	1	230	170	128
	2	206	164	127
	3	216	171	131
0.6 mM Metformin	1	186	85	30
	2	179	78	33
	3	181	86	31
1 μM Curcumin	1	162	38	111
	2	146	41	108
	3	153	38	107
0.6 mM Met- formin + 1 μM Curcumin	1	119	21	14
	2	102	18	16
	3	108	19	13

Raw data of Figure 3: Viability of AGS cells after treatment with serial dilutions of anticancer drugs with or without combination of metformin and curcumin for 48 hours. All experiments were carried out independently in triplicate. In each independent biological replication, cell viability was normalized by untreated control cell culture.

Treatment	Repli- cate	Cisplatin concentration (μM)						
		0	1.2	3.7	11	33	100	300
Cisplatin	1	1	0.905	0.830	0.740	0.403	0.111	0.085
	2	1	0.955	0.874	0.762	0.365	0.186	0.068
	3	1	0.946	0.852	0.777	0.369	0.151	0.032
Cisplatin + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.654	0.682	0.568	0.180	0.001	0.004
	2	1	0.695	0.690	0.585	0.172	0.043	0.011
	3	1	0.678	0.696	0.631	0.225	0.059	0.049

Treatment	Repli- cate	Carboplatin concentration (μM)						
		0	0.4	1.2	3.7	11	33	100
Carboplatin	1	1	0.985	1.020	0.959	0.642	0.527	0.372
	2	1	1.000	0.995	1.002	0.627	0.480	0.365
	3	1	1.010	0.973	0.953	0.741	0.542	0.319
Carboplatin + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.745	0.747	0.652	0.561	0.447	0.292
	2	1	0.699	0.650	0.677	0.525	0.459	0.285
	3	1	0.703	0.689	0.626	0.502	0.438	0.270

Treatment	Repli- cate	Oxaliplatin concentration (μM)						
		0	0.4	1.2	3.7	11	33	100
Oxaliplatin	1	1	0.856	0.722	0.573	0.506	0.431	0.171
	2	1	0.894	0.658	0.574	0.493	0.395	0.154
	3	1	0.885	0.631	0.539	0.475	0.427	0.133
Oxaliplatin + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.570	0.509	0.388	0.385	0.270	0.031
	2	1	0.565	0.489	0.410	0.357	0.171	0.008
	3	1	0.596	0.480	0.357	0.332	0.209	0.105

Raw data of Figure 3 (cont.)

Treatment	Repli- cate	Epirubicin concentration (μM)						
		0	0.03	0.11	0.33	1	3	9
Epirubicin	1	1	0.687	0.608	0.331	0.290	0.263	0.200
	2	1	0.631	0.604	0.383	0.268	0.169	0.129
	3	1	0.691	0.557	0.349	0.248	0.202	0.167
Epirubicin + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.512	0.419	0.217	0.173	0.114	0.026
	2	1	0.532	0.429	0.242	0.117	0.053	0.043
	3	1	0.543	0.364	0.283	0.047	0.084	0.052

Treatment	Repli- cate	Doxorubicin concentration (μM)						
		0	0.03	0.11	0.33	1	3	9
Doxorubicin	1	1	0.837	0.719	0.593	0.099	0.132	0.024
	2	1	0.786	0.751	0.486	0.131	0.061	0.028
	3	1	0.759	0.749	0.540	0.179	0.039	0.025
Doxorubicin + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.604	0.656	0.474	0.065	0.024	0.015
	2	1	0.583	0.622	0.446	0.052	0.027	0.008
	3	1	0.635	0.580	0.417	0.049	0.045	0.007

Treatment	Repli- cate	Docetaxel concentration (μM)						
		0	1.2	3.7	11	33	100	300
Docetaxel	1	1	0.871	0.709	0.594	0.534	0.426	0.123
	2	1	0.937	0.677	0.563	0.428	0.399	0.172
	3	1	0.826	0.689	0.539	0.499	0.408	0.089
Docetaxel + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.509	0.530	0.435	0.402	0.205	0.105
	2	1	0.552	0.470	0.372	0.335	0.263	0.031
	3	1	0.685	0.495	0.367	0.308	0.187	0.013

Raw data of Figure 3 (cont.)

Treatment	Repli- cate	Palitaxel concentration (μM)						
		0	0.4	1.2	3.7	11	33	100
Palitaxel	1	1	0.539	0.473	0.425	0.334	0.125	0.087
	2	1	0.511	0.490	0.428	0.324	0.120	0.035
	3	1	0.538	0.463	0.404	0.374	0.096	0.002
Palitaxel + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.393	0.319	0.307	0.261	0.049	0.001
	2	1	0.369	0.341	0.279	0.204	0.008	0.043
	3	1	0.384	0.296	0.262	0.232	0.006	0.003

Treatment	Repli- cate	Methotrexate concentration (μM)						
		0	0.03	0.11	0.33	1	3	9
Methotrexate	1	1	0.463	0.447	0.446	0.424	0.383	0.368
	2	1	0.474	0.427	0.382	0.393	0.388	0.358
	3	1	0.496	0.395	0.398	0.367	0.421	0.397
Methotrexate + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.338	0.300	0.288	0.313	0.307	0.278
	2	1	0.367	0.320	0.299	0.288	0.286	0.234
	3	1	0.346	0.338	0.284	0.269	0.253	0.253

Raw data of Figure 4:

Cell viability of AGS and HDF cells treated with anticancer drugs alone and in presence of “Metformin + Curcumin” for 48 hours

Treatments	AGS cells			HDF cells		
	Replicate 1	Replicate 2	Replicate 3	Replicate 1	Replicate 2	Replicate 3
0.6 mM Metformin	1.014	0.988	0.986	0.983	0.998	0.992
0.5 μM Curcumin	0.950	1.020	1.028	1.004	1.014	0.997
Metformin + Curcumin*	0.732	0.738	0.766	0.994	0.965	0.988
1.2 μM Cisplatin	0.905	0.955	0.946	1.005	0.971	0.956
1.2 μM Cisplatin + Metformin + Curcumin	0.654	0.695	0.678	0.980	0.963	0.949
0.4 μM Carboplatin	0.985	1.000	1.010	0.988	1.013	0.993
0.4 μM Carboplatin + Metformin + Curcumin	0.745	0.699	0.703	0.977	0.991	0.981
0.4 μM Oxaliplatin	0.856	0.894	0.885	1.002	1.016	0.987
0.4 μM Oxaliplatin + Metformin + Curcumin	0.570	0.565	0.596	1.004	0.995	0.970
0.037 μM Epirubicin	0.687	0.631	0.691	0.980	1.025	1.018
0.037 μM Epirubicin + Metformin + Curcumin	0.512	0.532	0.543	1.024	1.018	1.029
0.037 μM Doxorubicin	0.837	0.786	0.759	0.972	1.021	1.028
0.037 μM Doxorubicin + Metformin + Curcumin	0.604	0.583	0.635	1.015	0.985	1.004
1.2 μM Docetaxel	0.871	0.937	0.826	0.983	1.007	1.011
1.2 μM Docetaxel + Metformin + Curcumin	0.509	0.552	0.685	1.032	1.040	1.027
0.4 μM Paclitaxel	0.539	0.511	0.538	0.983	0.982	0.993
0.4 μM Paclitaxel + Metformin + Curcumin	0.393	0.369	0.384	1.000	0.996	0.989
0.037 μM Methotrexate	0.463	0.474	0.496	1.001	0.997	0.987
0.037 μM Methotrexate + Metformin + Curcumin	0.338	0.367	0.346	1.004	0.981	1.018

*Data of Metformin + Curcumin was used for comparison in each anticancer drug.

Raw data of Supplementary Figure 1: Viability of AGS cells after treatment with serial dilutions of anticancer drugs with or without combination of metformin and curcumin for 72 hours. All experiments were carried out independently in triplicate. In each independent biological replication, cell viability was normalized by untreated control cell culture.

Treatment	Repl- cate	Cisplatin concentration (μM)						
		0	1.2	3.7	11	33	100	300
Cisplatin	1	1	0.912	0.769	0.593	0.135	0.009	0.007
	2	1	0.885	0.715	0.539	0.169	0.020	0.001
	3	1	0.846	0.736	0.633	0.150	0.024	0.006
Cisplatin + (0.6 mM Metfor- min + 0.5 μM Curcumin)	1	1	0.641	0.604	0.471	0.069	0.030	0.023
	2	1	0.565	0.535	0.428	0.099	0.004	0.013
	3	1	0.599	0.582	0.370	0.077	0.001	0.010

Treatment	Repl- cate	Carboplatin concentration (μM)						
		0	0.4	1.2	3.7	11	33	100
Carboplatin	1	1	0.994	0.940	0.938	0.617	0.377	0.327
	2	1	0.989	0.915	0.877	0.619	0.559	0.343
	3	1	0.984	1.028	0.975	0.609	0.502	0.314
Carboplatin + (0.6 mM Metfor- min + 0.5 μM Curcumin)	1	1	0.449	0.414	0.406	0.321	0.242	0.139
	2	1	0.489	0.481	0.448	0.299	0.246	0.162
	3	1	0.492	0.438	0.411	0.295	0.265	0.151

Treatment	Repl- cate	Oxaliplatin concentration (μM)						
		0	0.4	1.2	3.7	11	33	100
Oxaliplatin	1	1	0.822	0.616	0.443	0.436	0.335	0.083
	2	1	0.824	0.607	0.527	0.429	0.327	0.059
	3	1	0.927	0.597	0.465	0.466	0.284	0.127
Oxaliplatin + (0.6 mM Metfor- min + 0.5 μM Curcumin)	1	1	0.533	0.434	0.340	0.302	0.176	0.026
	2	1	0.510	0.449	0.302	0.281	0.196	0.003
	3	1	0.474	0.455	0.375	0.313	0.150	0.001

Raw data of Supplementary Figure 1 (cont.)

Treatment	Repli- cate	Epirubicin concentration (μM)						
		0	0.03	0.11	0.33	1	3	9
Epirubicin	1	1	0.609	0.505	0.295	0.157	0.108	0.098
	2	1	0.568	0.450	0.250	0.155	0.108	0.097
	3	1	0.682	0.470	0.271	0.150	0.110	0.083
Epirubicin + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.416	0.327	0.116	0.031	0.028	0.012
	2	1	0.398	0.294	0.178	0.042	0.035	0.005
	3	1	0.431	0.339	0.114	0.057	0.023	0.014

Treatment	Repli- cate	Doxorubicin concentration (μM)						
		0	0.03	0.11	0.33	1	3	9
Doxorubicin	1	1	0.561	0.498	0.246	0.012	0.007	0.001
	2	1	0.578	0.518	0.269	0.008	0.010	0.009
	3	1	0.592	0.550	0.259	0.003	0.002	0.000
Doxorubicin + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.374	0.399	0.278	0.026	0.006	0.004
	2	1	0.399	0.383	0.183	0.005	0.016	0.001
	3	1	0.424	0.358	0.244	0.014	0.005	0.007

Treatment	Repli- cate	Docetaxel concentration (μM)						
		0	1.2	3.7	11	33	100	300
Docetaxel	1	1	0.870	0.658	0.465	0.480	0.357	0.040
	2	1	0.852	0.569	0.487	0.428	0.309	0.092
	3	1	0.884	0.589	0.478	0.414	0.270	0.114
Docetaxel + (0.6 mM Metformin + 0.5 μM Curcumin)	1	1	0.551	0.433	0.320	0.280	0.135	0.000
	2	1	0.544	0.408	0.357	0.370	0.179	0.054
	3	1	0.507	0.458	0.334	0.240	0.198	0.012

Raw data of Supplementary Figure 1 (cont.)

Treatment	Repli- cate	Palitaxel concentration (μM)						
		0	0.4	1.2	3.7	11	33	100
Palitaxel	1	1	0.451	0.426	0.377	0.303	0.052	0.026
	2	1	0.502	0.442	0.328	0.328	0.091	0.031
	3	1	0.500	0.358	0.298	0.199	0.073	0.011
Palitaxel + (0.6 mM Metformin + 1 μM Curcumin)	1	1	0.298	0.220	0.169	0.174	0.008	0.009
	2	1	0.321	0.278	0.255	0.154	0.002	0.006
	3	1	0.264	0.224	0.209	0.143	0.001	0.002

Treatment	Repli- cate	Methotrexate concentration (μM)						
		0	0.03	0.11	0.33	1	3	9
Methotrexate	1	1	0.380	0.334	0.349	0.367	0.336	0.334
	2	1	0.424	0.360	0.327	0.316	0.308	0.302
	3	1	0.427	0.366	0.320	0.284	0.288	0.298
Methotrexate + (0.6 mM Metformin + 1 μM Curcumin)	1	1	0.249	0.251	0.228	0.208	0.190	0.182
	2	1	0.279	0.257	0.219	0.198	0.196	0.173
	3	1	0.274	0.232	0.211	0.231	0.216	0.203

Raw data of Supplementary Figure 2:

Cell viability of AGS and HDF cells treated with anticancer drugs alone and in presence of “Metformin + Curcumin” for 72 hours

Treatments	AGS cells			HDF cells		
	Replicate 1	Replicate 2	Replicate 3	Replicate 1	Replicate 2	Replicate 3
0.6 mM Metformin	0.958	0.976	0.987	0.988	0.994	0.974
1 μM Curcumin	0.941	0.988	0.974	0.996	0.997	0.972
Metformin + Curcumin*	0.593	0.656	0.600	1.020	0.954	0.926
1.2 μM Cisplatin	0.912	0.885	0.846	0.933	0.915	0.952
1.2 μM Cisplatin + Metformin + Curcumin	0.622	0.584	0.599	0.935	0.893	0.925
0.4 μM Carboplatin	0.994	0.989	0.984	0.933	0.960	0.997
0.4 μM Carboplatin + Metformin + Curcumin	0.449	0.489	0.492	0.966	0.904	0.911
0.4 μM Oxaliplatin	0.822	0.824	0.927	0.914	0.946	0.969
0.4 μM Oxaliplatin + Metformin + Curcumin	0.533	0.510	0.474	0.942	0.946	0.903
0.037 μM Epirubicin	0.609	0.568	0.682	0.984	1.012	0.938
0.037 μM Epirubicin + Metformin + Curcumin	0.416	0.398	0.431	0.898	0.924	1.009
0.037 μM Doxorubicin	0.561	0.578	0.592	0.998	0.977	1.008
0.037 μM Doxorubicin + Metformin + Curcumin	0.374	0.399	0.424	0.917	0.986	0.964
1.2 μM Docetaxel	0.870	0.852	0.884	1.015	1.050	0.950
1.2 μM Docetaxel+ Metformin + Curcumin	0.551	0.544	0.507	0.937	0.957	0.930
0.4 μM Paclitaxel	0.451	0.502	0.500	1.019	0.954	0.967
0.4 μM Paclitaxel + Metformin + Curcumin	0.298	0.321	0.264	0.965	0.995	0.992
0.037 μM Methotrexate	0.397	0.444	0.427	1.052	1.000	0.928
0.037 μM Methotrexate + Metformin + Curcumin	0.249	0.279	0.274	0.928	0.975	0.876

*Data of Metformin + Curcumin was used for comparison in each anticancer drug.

Raw data of Table 1:

Investigation of the synergistic effect (Cytotoxicity = 1- viability) of combination treatment of metformin and curcumin on AGS cells. Cell viability inhibition was evaluated after 48 hours of single and combination treatment of metformin and curcumin. Data was analyzed by CompuSyn software.

Treatments	Replicate 1	Replicate 2	Replicate 3	Average*
Metformin (μM)				
625	0.000	0.005	0.007	0.004
1250	0.040	0.014	0.029	0.028
2500	0.058	0.065	0.019	0.047
5000	0.105	0.049	0.100	0.085
10000	0.155	0.206	0.172	0.178
20000	0.283	0.228	0.208	0.240
40000	0.333	0.415	0.396	0.381
80000	0.546	0.510	0.468	0.508
160000	0.663	0.658	0.688	0.670
320000	0.885	0.869	0.936	0.897
Curcumin (μM)				
0.5	0.001	0.002	0.000	0.001
1	0.000	0.004	0.002	0.002
2	0.039	0.025	0.015	0.026
4	0.121	0.087	0.021	0.076
8	0.218	0.155	0.162	0.178
16	0.442	0.402	0.347	0.397
32	0.689	0.658	0.597	0.648
64	0.855	0.844	0.781	0.827
128	0.958	0.949	0.949	0.952
256	0.975	0.981	0.981	0.979
Metformin + Curcumin (μM)				
625 + 0.5	0.268	0.262	0.234	0.255
1250 + 1	0.280	0.261	0.262	0.268
2500 + 2	0.343	0.286	0.316	0.315
5000 + 4	0.368	0.416	0.378	0.387
10000 + 8	0.544	0.561	0.586	0.564
20000 + 16	0.690	0.758	0.711	0.720
40000 + 32	0.841	0.786	0.860	0.829
80000 + 64	0.944	0.993	0.956	0.964
160000 + 128	0.990	0.930	0.976	0.965
320000 + 256	0.983	0.994	0.939	0.972

*Average values were used for analysis.

Raw data of Table 1 (cont.)

Investigation of the synergistic effect (Cytotoxicity = 1- viability) of combination treatment of metformin and curcumin on AGS cells. Cell viability inhibition was evaluated after 72 hours of single and combination treatment of metformin and curcumin. Data was analyzed by CompuSyn software.

Treatments	Replicate 1	Replicate 2	Replicate 3	Average*
Metformin (μM)				
625	0.042	0.024	0.013	0.026
1250	0.069	0.085	0.060	0.071
2500	0.073	0.134	0.108	0.105
5000	0.100	0.167	0.124	0.130
10000	0.267	0.271	0.302	0.280
20000	0.424	0.464	0.505	0.464
40000	0.619	0.627	0.651	0.632
80000	0.676	0.704	0.745	0.708
160000	0.805	0.800	0.822	0.809
320000	0.932	0.955	0.985	0.957
Curcumin (μM)				
1	0.059	0.012	0.026	0.032
2	0.076	0.045	0.051	0.057
4	0.227	0.201	0.153	0.194
8	0.374	0.361	0.438	0.391
16	0.662	0.633	0.648	0.648
32	0.891	0.889	0.907	0.896
64	0.982	0.996	0.996	0.991
128	0.995	0.995	0.989	0.993
256	0.977	0.996	0.998	0.990
512	0.997	0.998	0.992	0.996
Metformin + Curcumin (μM)				
625 + 1	0.407	0.344	0.400	0.384
1250 + 2	0.388	0.382	0.410	0.393
2500 + 4	0.400	0.403	0.428	0.410
5000 + 8	0.437	0.453	0.488	0.459
10000 + 16	0.551	0.621	0.573	0.582
20000 + 32	0.829	0.837	0.852	0.839
40000 + 64	0.925	0.938	0.953	0.939
80000 + 128	0.971	0.964	0.994	0.976
160000 + 256	0.986	0.992	0.996	0.991
320000 + 512	0.989	0.995	0.999	0.994

*Average values were used for analysis.