

A Bibenzyl from *Dendrobium pachyglossum* Exhibits Potent Anti-Cancer Activity against Glioblastoma Multiforme

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Supplementary Table S1. Detailed information on the chemicals and reagents used in this study.

Manufacturer	Chemicals	Catalogue number
Cell Signaling Technology (Danvers, MA, USA)	RIPA buffer (10X)	9806
	protease/phosphatase inhibitor cocktail (100X)	5872
Energenesis Biomedical (Taipei, Taiwan)	BlockPRO™ 1 min blocking buffer	BM01-500
MilliporeSigma (Burlington, MA, USA)	bovine serum albumin	12659
	crystal violet	1159400100
	2,2-Diphenyl-1-picrylhydrazyl (DPPH)	D9132
	Ferric chloride hexahydrate	236489
	Immobilon western chemiluminescent HRP substrate	WBKLS0100
	2,4,6-Tris(2-pyridyl)-s-triazine (TPTZ)	T1253
Thermo Fisher Scientific (Waltham, MA, USA)	3-(4,5-Dimethyl-2-thiazolyl)-2,5-diphenyltetrazolium bromide (MTT)	M6494
	DMEM	12800-017
	DMEM/F12	12500-062
	Fetal bovine serum	A5256701
	Penicillin-streptomycin	15140-122
	Pierce BCA protein assay kit	23225
	Trypsin-EDTA	25200-072
Immuno Tools GmbH (Friesoythe, Germany)	Annexin V apoptosis detection kit FITC with PI	PI-3149001PI Annexin V-31490013

Tokyo Chemical Industry (Tokyo, Japan)	temozolomide	T2744
HiMedia Laboratories (Maharashtra, India)	paraformaldehyde	GRM3660

Supplementary Table S2. List of antibodies used in western blot analysis. All antibodies were purchased from Cell Signaling Technology (Danvers, Massachusetts, USA).

Antibody	Source	Catalogue number	Concentration
Primary Antibody			
Akt	rabbit	9272	1:1000
p-Akt (Ser473)	rabbit	4060	1:2000
S6	rabbit	2217	1:1000
p-S6 (Ser235/236)	rabbit	4858	1:2000
Bax	rabbit	5023	1:1000
Bcl-xL	rabbit	2764	1:1000
Mcl-1	rabbit	94296	1:1000
N-cadherin	rabbit	13116	1:1000
ZEB1	rabbit	70512	1:1000
Snail	rabbit	3879	1:1000
Slug	rabbit	9585	1:1000
Twist1	rabbit	90445	1:1000
GAPDH	rabbit	5174	1:1000
Secondary Antibody			
Anti-rabbit IgG, HRP-linked antibody	goat	7074	1:2000

Supplementary Table S3. The *p*-values corresponding to each graph presented in the main manuscript. Unless otherwise specified, *p*-values represent comparisons versus the untreated control group.

Figure	Experimental Condition	<i>p</i> value
2B	TDB 25 μ M	0.0032
	TDB 50 μ M	0.0001
	TDB 100 μ M	<0.0001
	TDB 200 μ M	<0.0001
3B	TDB 25 μ M	0.9569
	TDB 50 μ M	0.0004
	TDB 100 μ M	<0.0001
	TDB 200 μ M	<0.0001
3D (Bax)	3 h	0.2556
	6 h	0.0700
	12 h	0.0736
	24 h	0.0806
	48 h	0.0207
	72 h	0.0301
3D (Bcl-xL)	3 h	0.0803
	6 h	0.1295
	12 h	0.3227
	24 h	0.0578
	48 h	0.0041
	72 h	<0.0001
3D (Mcl-1)	3 h	0.8370
	6 h	0.0633
	12 h	0.4412
	24 h	0.3924
	48 h	0.0308
	72 h	0.0006

Supplementary Table S3. (Continued)

Figure	Experimental Condition	<i>p</i> value
4B (Akt)	3 h	0.3106
	6 h	0.2645
	12 h	0.8579
	24 h	0.5484
	48 h	0.6604
	72 h	0.0950
4B (p-Akt)	3 h	0.0358
	6 h	0.0115
	12 h	0.0131
	24 h	0.0019
	48 h	0.0139
	72 h	0.0006
4B (S6)	3 h	0.5239
	6 h	0.4896
	12 h	0.5817
	24 h	0.4524
	48 h	0.9491
	72 h	0.3166
4B (p-S6)	3 h	0.2938
	6 h	0.8016
	12 h	0.8330
	24 h	0.2465
	48 h	0.0075
	72 h	0.0002
5D (N-Cadherin)	TDB 6.25 μ M	0.0032
	TDB 12.5 μ M	0.0011
	TDB 25 μ M	0.0089
5D (ZEB1)	TDB 6.25 μ M	0.2249
	TDB 12.5 μ M	0.3912
	TDB 25 μ M	0.0070
5D (Snail)	TDB 6.25 μ M	0.9739
	TDB 12.5 μ M	0.0826
	TDB 25 μ M	0.0492

Supplementary Table S3. (Continued)

Figure	Experimental Condition	<i>p</i> value
5D (Slug)	TDB 6.25 μ M	0.3133
	TDB 12.5 μ M	0.4808
	TDB 25 μ M	0.0016
5D (Twist1)	TDB 6.25 μ M	0.3041
	TDB 12.5 μ M	0.0051
	TDB 25 μ M	0.0009
6A	TMZ 2.5 μ M	0.0224
	TMZ 5 μ M	0.0048
	TMZ 10 μ M	0.0026
	TMZ 25 μ M	<0.0001
	TMZ 50 μ M	<0.0001
6C U87MG	TMZ	0.0004
	TMZ + TDB 25 μ M	<0.0001
	TMZ + TDB 50 μ M	<0.0001
6C* U87MG (v.s. TMZ)	TMZ + TDB 25 μ M	0.0155
	TMZ + TDB 50 μ M	0.0073
6D Jx22	TMZ	0.0005
	TMZ + TDB 25 μ M	<0.0001
	TMZ + TDB 50 μ M	<0.0001
6D* Jx22 (v.s. TMZ)	TMZ + TDB 25 μ M	0.0003
	TMZ + TDB 50 μ M	0.0002