

**Supplementary Table 1.** Cell line IC<sub>50</sub> for 6TG +/- 10  $\mu$ M MTA

Cell line	Cell type/origin	MTAP status	IC <sub>50</sub> 6TG ( $\mu$ M)	IC <sub>50</sub> 6TG+MTA ( $\mu$ M)	Ratio 6TG+MTA/6TG
ACHN	Kidney Tumor	Negative	2.83	10.31	3.6
HT1080	Fibrosarcoma	Negative	0.07	1.70	1.7
Nf2-54	Mesothelioma	Negative	0.12	0.16	1.3
Nf2-15	Mesothelioma	Negative	0.22	0.38	1.8
769-p	Kidney Tumor	Positive	2.57	17.87	7.0
Caki	Kidney Tumor	Positive	0.07	36.40	554
HEK293	Embryonic Kidney	Positive	1.94	5.24	2.7
HL60	Promyeloblast	Positive	0.60	128.3	214
MEF5	Embryonic Fibroblast	Positive	44.9	4137	96.2
MEF8	Embryonic Fibroblast	Positive	58	594	10.3
MCF-7+MTAP	Breast Adenocarcinoma	Positive	13.4	43.6	3.25
Nf2-28	Mesothelioma	Positive	0.33	167.1	509
Nf2-45	Mesothelioma	Positive	0.18	248.9	1420
Nf2-53	Mesothelioma	Positive	0.14	192.8	1368
Nf2-78	Mesothelioma	Positive	16.4	566	34.5
Nf2#82	Mesothelioma	Positive	0.56	57.5	102
HT1080+MTAP	Fibrosarcoma	Positive	0.06	15.9	360

**Supplementary Table 2.** Cell line IC50 for 2FA +/- 10  $\mu$ M MTA

Cell line	Cell type/origin	MTAP status	IC <sub>50</sub> 2FA ( $\mu$ M)	IC <sub>50</sub> 2FA+MTA ( $\mu$ M)	Ratio 2FA+MTA/6TG
3T3- <i>MTAP</i> <sup>-</sup>	Mouse Embryonic Fibroblast	Negative	0.17	0.21	1.3
A172	Glioblastoma	Negative	0.11	0.11	1.0
U87	Glioblastoma	Negative	0.40	0.65	1.6
HT1080- <i>MTAP</i> <sup>-</sup>	Fibrosarcoma	Negative	0.08	0.09	1.2
JC101	Pancreatic Cancer	Negative	8.0	7.5	0.9
A549	Lung Cancer	Negative	0.9	1.2	1.3
MiaPaca2	Pancreatic Cancer	Negative	2.3	2.2	1.0
3T3- <i>MTAP</i> <sup>+</sup>	Mouse Embryonic Fibroblast	Positive	0.09	6.0	70
HT1080- <i>MTAP</i> <sup>+</sup>	Embryonic Fibroblast	Positive	0.03	0.6	22
MCF-7+ <i>MTAP</i> <sup>+</sup>	Breast Adenocarcinoma	Positive	0.33	3.8	11.4
GM13605	EBV lymphocyte	Positive	0.26	1.5	5.7
GM17733	EBV lymphocyte	Positive	0.20	2.5	12.9
GM17738	EBV lymphocyte	Positive	0.54	3.8	6.5