Table S1. Phosphoinositide attenuation in *Dictyostelium* by VPA and other compounds

Chemical category	Chemical (common name)	Chemical (IUPAC nomenclature)	PIP Level (% control)	s.d.
	valproic acid (VPA)	2-propylpentanoic acid	32.0	8.7
Straight-chain acids				
	valeric acid	pentanoic acid	66.9	7.8
	n-caproic acid	hexanoic acid	49.2	10.1
	enanthoic acid	heptanoic acid	31.2	5
	caprylic acid	octanoic acid	16.7	3.4
	pelagonic acid	nonanoic acid	8	1.7
	capric acid	decanoic acid	12.9	1.4
	Lauric acid	dodecanoic acid	42	3
	Margaric acid	heptadecanoic acid	92.3	2.8
4-6 carbon backbone acids				
	Isovaleric Acid	3-methylbutanoic acid	99.1	11.4
	TBA	tert-butylacetic acid	21.4	4.1
	PIA	propylisopropylacetic acid	15.4	2.2
	DIA	diisopropylacetic acid	18.6	4.5
	2M2P	2-methyl-2-pentenoic acid	14.8	3.8
		2-ethyl-4-methylpentanoic acid	54.8	0.1
		4-methylhexanoic acid	68	3
		S-2-pentyl-4-pentynoic acid	82	7
		2-methylhexanoic acid	68.1	14.8
		5-methylhexanoic acid	7.2	0.7
		2-ethylhexanoic acid	22.2	5.3
7 - 9 carbon backbone acids				
		2-methylheptanoic acid	16.1	6.4
		4-methyloctanoic acid	12	1.3
		4-ethyloctanoic acid	13.2	1.8
		4-methylnonanoic acid	45	16
Other acids				
	TMCA	tetramethylcyclopropane carboxylic acid	33.9	7.7
Amides				
	valpromide (VPD)	2-propylpentamide	69.3	13.3
	TMCD	tetramethylcyclopropane-carboxamide	72.5	7.2
	MTMCD	N-methyl-tetramethyl--cyclopropane carboxamide	50.8	6.9
	PID	propylisopropylacetamide	59	12.2
		Tert-butyl amide	47.6	12
		n-propyl 2-methylvalerate	121	13.6
Aldehydes		methylvalerate	46	5.5
	valeraldehyde	octanal	260	199
		nonanal	99	13
Alcohols		2-butyl-1-octanol	93	53
		2-hexyl-1-decanol	191	38

Compounds are divided by backbone size, straight or branched, and derivitization. Common names and IUPAC nomenclature is included. Data are provided for residual PIP production (± s.d.) in the presence of 0.5 mM treatment over a 9 minute period. Each value represents triplicate experiments in duplicate.