

Supplementary Table 1. Lipid internal standards used in LC-MS analysis

Lipid class	Species
PtdOH	25:0 31:1 37:4 43:6
PC	25:0 31:1 37:4 43:6
PE	25:0 31:1 37:4 43:6
PG	25:0 31:1 37:4 43:6
PS	25:0 31:1 37:4 43:6
PI	25:0 31:1 37:4 43:6

Supplementary Table 2. Species distribution of phospholipids and sphingolipids detected in A549 cells after treatment with wildtype (WT) or mutant (K169E) PldA.

Lipid class PtdOH	Species	Treatment		Lipid class PC	Species	Treatment	
		WT ^a	K169E ^a			WT ^a	K169E ^a
PE	30:1	14.9%	8.1%	PI	30:0	2.0%	2.1%
	32:1	6.4%	15.4%		32:1	10.1%	9.8%
	34:2	3.5%	9.0%		32:0	2.8%	2.6%
	34:1	22.2%	23.8%		34:1e	5.4%	5.4%
	36:2	22.3%	27.1%		34:2	5.6%	5.5%
	36:1	30.7%	16.6%		34:1	16.1%	15.6%
	30:1	0.3%	0.3%		36:4e	3.0%	3.1%
	32:1	2.2%	0.9%		36:2e	2.9%	3.0%
	34:1p	3.3%	3.5%		36:1e	3.1%	3.3%
	34:2	3.2%	1.9%		36:0e	2.5%	2.6%
	34:1	4.8%	3.8%		36:4	6.4%	7.1%
	36:4p	11.9%	12.6%		36:3	5.9%	5.9%
PG	36:3p	2.3%	2.4%	PS	36:2	18.3%	18.1%
	36:2p	1.2%	1.3%		36:1	8.3%	8.6%
	36:1p	1.6%	1.4%		38:6	2.5%	2.3%
	36:4	3.6%	3.6%		38:5	5.2%	5.0%
	36:3	1.6%	1.8%		36:2	5.7%	5.6%
	36:2	6.8%	6.0%		36:1	3.4%	3.6%
	36:1	4.2%	4.1%		38:5	10.3%	10.5%
	36:0/38:6p	4.5%	4.5%		38:4	52.4%	52.8%
	38:5p	7.2%	7.7%		38:3	19.3%	18.7%
	38:4p	9.3%	10.1%		40:6	2.7%	2.5%
	38:5	8.4%	8.8%		40:5	3.2%	3.2%
	38:4	17.9%	19.0%		40:4	3.1%	3.0%
SM	38:3	3.6%	4.0%		34:1	15.4%	15.4%
	40:6	2.2%	2.3%		36:2	10.2%	10.2%
	34:1	42.3%	46.8%		36:1	32.9%	32.9%
	36:2	57.7%	53.2%		38:5	5.9%	5.8%
BMP	d18:1/16:0	80.0%	80.2%	BMP	38:4	23.5%	23.8%
	d18:2/22:0	20.0%	19.8%		38:0	6.8%	6.6%
					40:6	5.1%	5.2%
					40:7	100%	100%

^aShown are mean values.