

Table S1. Densytometric analysis of results presented in **Fig. 1A**. Cleaved caspase 3 was not detected in INS1E cells incubated without palmitate.

		16:0				
0 h	2 h	4 h	6 h	8 h	16 h	24 h
n.d.	n.d.	1.00 ± 0.01	4.06 ± 1.67*	6.01 ± 1.36*	12.92 ± 3.13*	13.38 ± 3.05*

*p<0.05 vs 16:0 at 4 h, n=3; n.d. – not detected

Table S2. Densytometric analysis of results presented in **Fig. 2B**.

	Vehicle		SCD1i	
	BSA	16:0	BSA	16:0
LC3B II	1.00 ± 0.07	1.49 ± 0.26*	1.21 ± 0.01*#	0.87 ± 0.11*#
cleaved caspase 3	n.d.	1.00 ± 0.01	n.d.	3.49 ± 0.52#

*p<0.05 vs BSA vehicle, #p<0.05 vs 16:0 vehicle, n=3; n.d. – not detected

Table S3. Densytometric analysis of results presented in **Fig. 2E**.

	Control		siRNA	
	BSA	16:0	BSA	16:0
SCD1	1.00 ± 0.12	1.56 ± 0.16*	n.d.	n.d.
LC3B II	1.00 ± 0.07	1.59 ± 0.06*	1.17 ± 0.05*#	1.28 ± 0.02*#&
cleaved caspase 3	n.d.	1.00 ± 0.06	0.87 ± 0.04#	3.81 ± 0.31#&

*p<0.05 vs BSA control, #p<0.05 vs 16:0 control, &p<0.05 vs BSA siRNA, n=3; n.d. – not detected

Table S4. Densitometric analysis of results presented in **Fig. 3A**. Cleaved caspase 3 was not detected in INS1E cells incubated without palmitate.

	BSA				16:0			
	vehicle	SCDi	3-MA	SCDi; 3-MA	vehicle	SCDi	3-MA	SCDi; 3-MA
LC3B II	1.00 ± 0.01	1.60 ± 0.32	1.22 ± 0.17*#	1.83 ± 0.15*^	2.07 ± 0.09*	1.43 ± 0.14*#	2.23 ± 0.07*^	3.14 ± 0.33*#&^
Cleaved caspase 3	n.d.	n.d.	n.d.	n.d.	1.00 ± 0.01	21.7 ± 1.39#	2.45 ± 0.92#	15.9 ± 4.08#

*p<0.05 vs BSA vehicle, #p<0.05 vs 16:0 vehicle, &p<0.05 vs BSA SCDi, ^p<0.05 vs 16:0 SCDi, n=3; n.d. – not detected

Table S5. Densitometric analysis of results presented in **Fig. 3B**. Cleaved caspase 3 was not detected in INS1E cells incubated without palmitate.

	BSA				16:0			
	vehicle	SCDi	MN	SCDi; MN	vehicle	SCDi	MN	SCDi; MN
LC3B II	1.00 ± 0.01	1.28 ± 0.33	1.63 ± 0.09*&	1.52 ± 0.16*&	1.59 ± 0.05*	0.75 ± 0.03*#	1.19 ± 0.22	0.67 ± 0.07*#
Cleaved caspase 3	n.d.	n.d.	n.d.	n.d.	1.00 ± 0.01	3.72 ± 0.76#	2.31 ± 0.67#	4.22 ± 1.28#

*p<0.05 vs BSA vehicle, #p<0.05 vs 16:0 vehicle, &p<0.05 vs 16:0 SCDi, n=3; n.d. – not detected

Table S6. Densitometric analysis of results presented in **Fig. 3C**. Cleaved caspase 3 was not detected in INS1E cells incubated without palmitate.

	BSA				16:0			
	vehicle	SCDi	E/P	SCDi; E/P	vehicle	SCDi	E/P	SCDi; E/P
LC3B II	1.00 ± 0.01	1.46 ± 0.13*#	2.26 ± 0.01*^&	1.77 ± 0.17*#	2.17 ± 0.07*^&	1.63 ± 0.09*#	2.05 ± 0.09*^&	1.82 ± 0.14*#&
Cleaved caspase 3	n.d.	n.d.	n.d.	n.d.	1.00 ± 0.01	3.97 ± 1.10#	1.74 ± 0.01#	5.11 ± 1.56#

*p<0.05 vs BSA vehicle, #p<0.05 vs 16:0 vehicle, &p<0.05 vs BSA SCDi, ^p<0.05 vs 16:0 SCDi, n=3; n.d. – not detected

Table S7. Densytometric analysis of results presented in **Fig. 6A**.

	Vehicle		SCD1i	
	BSA	16:0	BSA	16:0
CHOP	1.00 ± 0.13	1.45 ± 0.29*	1.67 ± 0.40*	1.28 ± 0.24*#
BiP	1.00 ± 0.11	1.50 ± 0.46*	1.32 ± 0.29*	0.77 ± 0.09*#
p-eIF2 α /eIF2 α	1.00 ± 0.08	1.35 ± 0.20*	1.36 ± 0.21*	0.77 ± 0.09*#

*p<0.05 vs BSA control, #p<0.05 vs 16:0 control

Table S8. Densytometric analysis of results presented in **Fig. 6B**.

	Vehicle		SCD1i	
	BSA	16:0	BSA	16:0
caspase 9	1.00 ± 0.01	1.04 ± 0.14	1.12 ± 0.20	1.04 ± 0.27
cleaved caspase 9	1.00 ± 0.05	4.47 ± 1.35*	1.62 ± 0.18*#	29.70 ± 3.15*#

*p<0.05 vs BSA control, #p<0.05 vs 16:0 control