

Table S2. Lipidomic Analysis of A375 Cells After Knockdown of SPRY4-IT1

SPRY4-IT1 knockdown decreases cellular diacylglycerol (DAG) levels by ~10% and increases triacylglycerol levels by ~15%, consistent with the observed effects of SPRY4-IT1 knockdown on acyl-coA:glycerol-3-phosphate acyltransferase 3 (GPAT3) and diacylglycerol O-acyltransferase 2 (DGAT2) expression (Fig. S6).

Lipidomic analysis of A375 cells subjected to SPRY4-IT1 knock-down

| <u>Lipid Species</u> | <u>A375</u> | <u>IT1</u> | <u>Percentage (%)</u> <u>(IT1/A375)</u> |
|--|-------------|------------|--|
| Acyl Carnitine (CAR) (pmol/mg protein) | 0.255286 | 0.460055 | 80.21% |
| Cardiolipin (CL) (nmol/mg protein) | 4.826375 | 2.595352 | -46.23% |
| Ceramide (CER) (nmol/mg protein) | 0.929514 | 1.056996 | 13.71% |
| Diacylglycerol (DAG) (nmol/mg protein) | 1.898592 | 1.704089 | -10.24% |
| Fatty Acyl Chains in TAG (FA) (nmol/mg protein) | 51.30639 | 58.61157 | 14.24% |
| Lyso Phosphatidylcholine (LPC) (nmol/mg protein) | 1.224603 | 1.01981 | -16.72% |
| Phosphatidic acid (PA) (nmol/mg protein) | 1.026541 | 0.639301 | -37.72% |
| Phosphatidylcholine (PC) (nmol/mg protein) | 49.64564 | 31.98054 | -35.58% |
| Phosphatidylethanolamine (PE) (nmol/mg protein) | 30.19263 | 34.19713 | 13.26% |
| Phosphatidylglycerol (PG) (nmol/mg protein) | 2.886709 | 3.42792 | 18.75% |
| Phosphatidylinositol (PI) (nmol/mg protein) | 12.47999 | 9.012531 | -27.78% |
| Phosphatidylserine (PS) (nmol/mg protein) | 15.45311 | 11.37352 | -26.40% |
| Sphingomyelin (SM) (nmol/mg protein) | 12.08027 | 10.85326 | -10.16% |
| Triacylglycerol (TAG) (nmol/mg protein) | 17.69247 | 20.35036 | 15.02% |