

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Mass spectrometry metabolite screening data from bovine liver and HEK293 cells. Fold ratios (Fig. 1B) were obtained after removing metabolites that have $\geq 20,000$ counts in WT NOCT sample (i.e. true substrates must be strongly depleted). Metabolites with $\leq 10,000$ counts in the input (10,000 counts is the background) were removed to examine only robustly detected compounds found in all controls.

File Name: Supplementary Data 2

Description: Mass spectrometry metabolite data obtained in human A549 WT cells and two independent clones of NOCT^{-/-} cells.

File Name: Supplementary Data 3

Description: Poly-A⁺ RNA-seq read counts from A549 WT cells and two independent clones of NOCT^{-/-} cells.