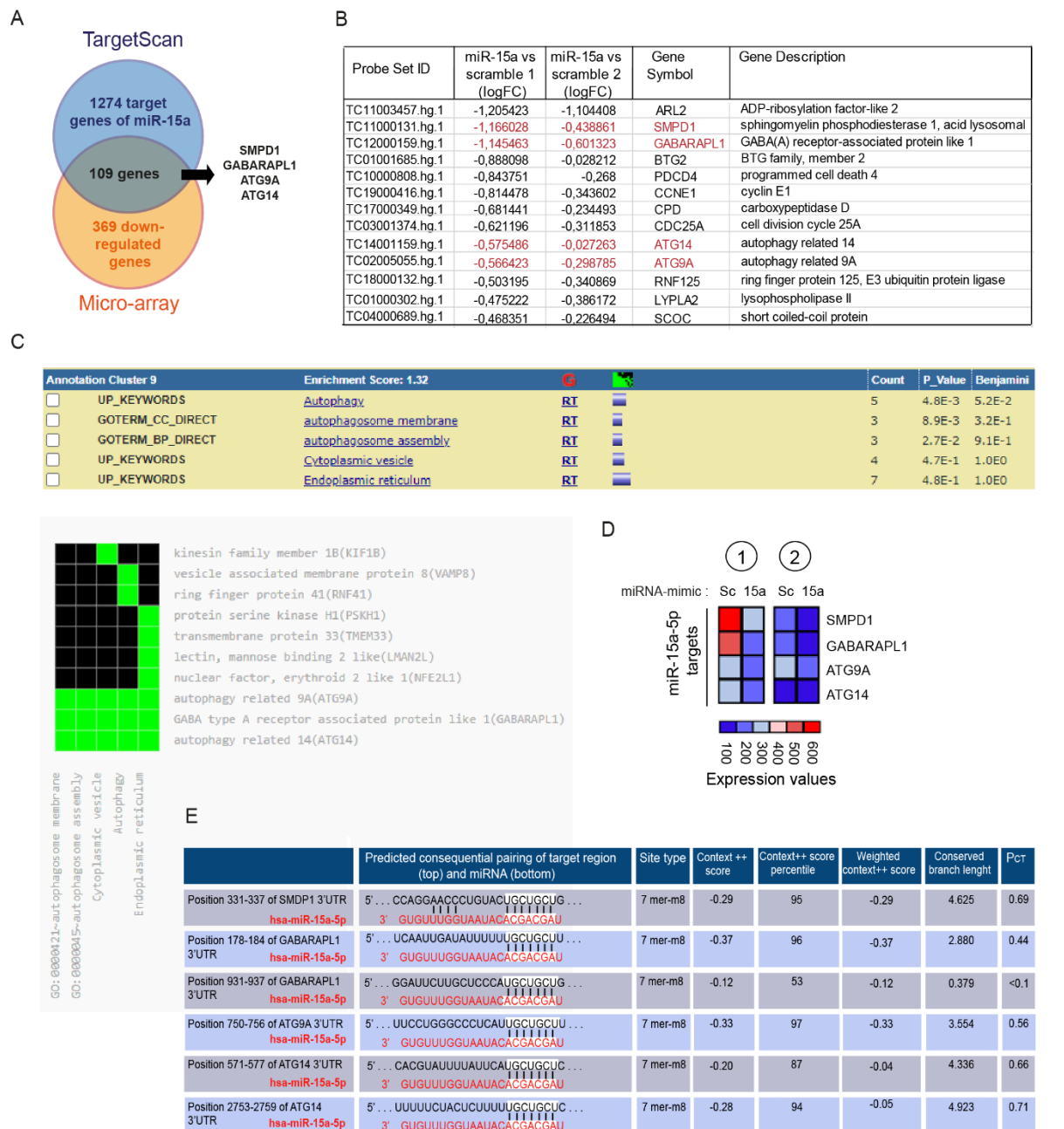


**Figure S1.** miR-15a-5p regulates autophagy induced by daunorubicin in KG1a cells. (A) KG1a cells were treated with different indicated doses of daunorubicin (DNR) or vehicle (DMSO) for 24 h. (B) KG1a cells were transiently transfected with miR-15a-5p mimic (15a) or scrambled mimic (Sc) as control for 48 h. (C) KG1a cells were transiently transfected with miR-15a-5p inhibitor (15ai) or scrambled inhibitor (Sci) as control for 48 h. (B-C) Cells were treated with 2μM of daunorubicin (DNR) for the last 24 h before protein and RNA extraction. (A-C) Level of autophagy was analyzed by western blotting with anti-LC3B, anti-LAMP-2, and anti-p62 antibodies. Expression of β-actin was also detected as a loading control. (B-C) miR-15a-5p expression was measured by RT-qPCR and normalized with the expression of RNU44. The scrambled condition was set to 1. The normalized means of three independent experiments are shown with SEM. (\*,  $p < 0.05$ , compared with the scrambled condition).



**Figure S2.** Predicted autophagy target genes of miR-15a-5p. K562 cells were transiently transfected with miR-15a-5p mimic or scrambled mimic as control and simultaneously treated with 1  $\mu$ M of daunorubicin for 24 h. RNA were extracted and gene expression profiles (Affymetrix) were performed in duplicate using microarray assays. (A) The list of downregulated mRNAs was crossed with target genes identified by the bioinformatics prediction program TargetScan and several genes involved in autophagy were identified. (B) The most important downregulated genes and their expression were resumed in the table. (C) DAVID web tool was used for pathway analysis of the selected gene list and revealed several functional clusters including autophagy. (D) Expression change of predicted autophagy target genes was shown for the two replicate experiments. (E) Predicted binding sites, identified by TargetScan, for miR-15a-5p in the 3'UTR region of genes involved in autophagy are resumed in the table.