

Supplementary File 1

A real example of cross shaped co-expression pattern. The gene expression data of this example (i.e. GDS4336 dataset) is from pancreatic ductal adenocarcinoma tumor tissues and adjacent non-tumor.

As it is indicated, expression levels of genes *C5* and *Elmo1* are positively correlated ($r_1 = 0.29$) in tumor samples (orang), while there is an inverse correlation ($r_2 = -0.91$) between *C5* and *Elmo1* expression levels in non-tumor samples (blue).

