S2 Table. Hypergeometric p-values, measuring the random overlap probability between genes that encode lysine acetylated proteins and essential genes from several  $E.\ coli$  datasets.

Data set	HG p-value
Gerdes et al., 2003 [10]	3.38e-12
Hashimoto et al, 2005 [11]	9.68e-35
Joyce et al., 2006 [12]	6.13e-05
Baba et al., 2006 [13]	7.91e-26
GSM	2.61e-37