



Supplementary Figure S8. Distribution of histone modification H3K4me3 and H3K36me3 grouped by expression level.

(A) H3K4me3 is enriched in promoter and its density is positively correlated with gene expression even when FPKM is more than 20 in Liver, 97L and LM3 cells. (B) H3K36me3 is enriched in genebody, which is also positively correlated with gene expression in Liver, 97L and LM3 cells. (C) H3K4me3 and H3K36me3 in *IDH2* and *TOMM40* affect gene expression rather than DNA methylation. *IDH2* and *TOMM40* in 97L are both expressed with similar DNA methylation pattern, while H3K4me3 and H3K36me3 are highly enriched on *TOMM40* which may lead to its higher expression. (D) *IDH2* is highly expressed in 97L while H3K4me3 and H3K36me3 are higher enriched in 97L than LM3.