

Description of Additional Supplementary Files

File name: Supplementary data 1

Description: Long-term culture-associated CpGs with cutoff $R > 0.7$ or $R < -0.7$.

File name: Supplementary data 2

Description: Pyrosequencing results of validation dataset.

File name: Supplementary data 3

Description: Read numbers of methylation patterns in each amplicon.

File name: Supplementary data 4

Description: Unique molecular identifiers with methylation patterns of hairpin data.