Microarray*:*

Methylation EPIC

The Infinium HD Methylation Assay Protocol scales methylation profiling to thousands of CpG loci per sample, resulting in interrogation of over 850,000 methylation sites quantitatively across the genome at single-nucleotide resolution. Preparation of DNA for the Infinium Methylation EPIC array is performed according to the Illumina Infinium HD Assay Methylation Protocol Guide. Briefly, bisulfite conversion of 500 ng of DNA is performed using the Zymo EZ-96 DNA Methylation Kit (Zymo, catalog D5003). This is followed by amplification of the bisulfite converted DNA, fragmentation, precipitation, DNA resuspension, and hybridization of the DNA to the BeadChip. Finally, BeadChips are imaged on an Illumina NextSeq instrument.

CytoSNP

The CytoSNP-850K BeadChip uses an exon-centric design to target 3262 genes. Preparation of DNA for the Infinium CytoSNP-850K v1.2 is performed according to the Illumina CytoSNP-850K BeadChip Reference Guide. 200 ng of DNA is amplified, fragmented, precipitated, suspended, and hybridized to the BeadChip. Finally, BeadChips are imaged on an Illumina NextSeq instrument.