

## Infinium Methylation EPIC Array v2.0 Service Guidelines

Infinium Methylation EPIC Array is a genome-wide DNA methylation analysis technique based on bisulfite conversion and Illumina® technology. It allows to quantitatively detect the methylation level of over 930,000 human CpG positions throughout the genome with single nucleotide resolution.

Each array can run 8 samples, so the sample number should be a multiple of 8.

Genomic DNA samples should be purified in a high-quality manner and sent to Diagenode (see “Sample submission guidelines for EPIC” document for detailed instructions).

### EPIC Array workflow

#### 1. End-to-end MethylationEPIC Array

- Bisulfite conversion
- Whole genome amplification
- Array hybridization
- Single base extension
- Array scanner

##### ***Provided files***

Sample annotation  
Variable annotation  
Scanner output (IDAT files)

#### 2. Additional bioinformatics analysis on request

- **Differential methylation analysis:** Identification of differentially methylated CpG between sample groups.

##### ***Provided files:***

- Report with summary of differential methylation analysis and plots
- Files containing the differentially methylated CpGs and breakdown of those positions in regional analysis (CpG islands, shelves, shores and open sea)
- File containing differential methylated region (DMRs)

- **Gene ontology terms analysis:** Enrichment analysis on gene sets. Gene Ontology terms that are overrepresented in methylated CpGs may indicate the underlying biological processes involved.
- **Pathway analysis:** Identify biochemical pathways in which genes associated with methylated CpG may be overrepresented.

### 3. Additional information

For sample preparation and sample shipment it is mandatory to follow Diagenode's guidelines. Initial/additional QC of new samples will be charged to the customer. Any delay in sample shipment to Diagenode's facilities might result in delaying customer's project.

Generated files will be available for download during 1 month and stored for an additional period of 3 months on Diagenode's servers. Additional long-term storage of data is available upon request. This offer includes a one hour call to walk you through the results if needed. Original samples are stored at Diagenode during 4 months after project completion, but will be discarded once this time is exceeded. Return shipment of samples is available upon request.

Any additional service which is beyond the current project scope will be charged to the customer.