

Infinium MethylationEPIC v1.0 Array Manifest File Release Notes

v1.0 B5

March 13, 2020

Manifest File Revision History

Revision	Date	Description of Change
V1.0 B5	March 2020	Manifest file annotation of discordant probes
v1.0 B4	May 2017	Manifest file formatting fix
v1.0 B3	April 2017	Removed 977 CpG sites from manifest
v1.0 B2	February 2016	Fixed switch in red/green signal for Infinium I SNP probes
v1.0 B1	January 2016	Removed one pair of bisulfite conversion controls and 1031 CpG sites from the manifest
v1.0	November 2015	Initial release

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Introduction

These release notes describe key changes to the Infinium MethylationEPIC v1.0 Array manifest files (.bpm and .csv formats) for v1.0 B4 since the product initial release.

I. Manifest v1.0 B1

NEW FEATURES:

- Added Strand column to the manifest file

IMPROVEMENTS:

- None

DEFECT REPAIRS:

- Removed one pair of low intensity bisulfite controls
 - Instead of 6 controls in each C & U in Infinium Methylation450K Array, there will be 5 controls in each C & U in EPIC: C1-5, U1-5.
- 1031 CpG sites removed due to underperformance within the Infinium MethylationEPIC v1.0 Array
 - 1029 CpG sites removed were from the legacy Infinium Methylation450K Array content.
 - 2 CpG sites (cg01962187, cg25909286) removed were novel for MethylationEPIC.

ISSUES:

- None

II. Manifest v1.0 B2

NEW FEATURES:

- None

IMPROVEMENTS:

- None

DEFECT REPAIRS:

- Fixed switch in red/green signal for Infinium I SNP probes

ISSUES:

- None

III. Manifest v1.0 B3

NEW FEATURES:

- None

IMPROVEMENTS:

- None

DEFECT REPAIRS:

- Up to 977 CpG sites have been removed from the DMAP files of BeadChips with serial numbers greater than or equal to 201172200001 due to manufacturing process change. These markers have also been removed from the manifest files to streamline comparison of data between the BeadChips before and after the loci removal in the GenomeStudio 2011.1 Analysis Software. A list of the 977 markers removed from the new version of the manifest is also available at the [product support page](#).
- Fixed rsID probe sequence swap.
- For additional information, refer to PQN0223 or contact Illumina Technical support.

ISSUES:

- Potential issues with analyzing data from BeadChips with serial numbers greater than or equal to 201172200001 using third-party software tools. Please download the latest release of those tools prior to analyzing the data.

IV. Manifest v1.0 B4

NEW FEATURES:

- None

IMPROVEMENTS:

- None

DEFECT REPAIRS:

- Reformatted the manifest files to address the issue with incorrect gene annotation formatting when viewed in Excel (gene names were incorrectly displayed as dates).

ISSUES:

- None

V. Manifest v1.0 B5

NEW FEATURES:

- None

IMPROVEMENTS:

- None

DEFECT REPAIRS:

- Identified 998 probes that function with high variability after manufacturing change from all prior Illumina methylation array products, and provided a new manifest column to identify these probes with the header "MFG_CHANGE_FLAGGED". Beadchips with serial numbers greater than or equal to 204220330001 should be used with the B5 manifest which notes which probes perform differently compared to prior methylation arrays. The new version of the manifest is available at the [product support page](#).
- Added the following header for chromosome alignment in reference to genome build GRCh38: CHR_hg38
- Added the following header for start position alignment in reference to genome build GRCh38: Start_hg38
- Added the following header for end position alignment in reference to human genome build GRCh38: End_hg38
- Added the following header for strand alignment in reference to human genome build GRCh38: Strand_hg38
- For additional information, refer to PCN2019-019 or contact Illumina Technical support.

ISSUES:

- None