Supplemental Figure 2: Technical Validation

HK169

HK181

HK37

HK50

HK70

HK58

HK65

HK146

HK148

HK164

% Methylation

HELP Assay ratio

% Methylation

HELP Assay ratio

% Methylation

HELP Assay ratio

% Methylation

HELP Assay ratio

% Methylation

HELP Assay ratio

% Methylation

HELP Assay ratio

% Methylation

HELP Assay ratio
Supplemental Figure 3

A) DMR HELP

B) CTL vs. CKD (HELP)

C) CTL vs. DKD (Infinium)

**DMR HELP**

**Infinium CTL**

**Infinium DKD**

**Infinium DMR**

**Chrom HMM**

**H3K4me1**

**H3K4me2**

**H3k4me3**

**Supplemental Figure 3**
Supplemental Figure 3

**D**

- **DMR 0.5 DAC HKC8**
- **Infin DMR**
- **HELP DMR**
- **SMAD3**
- **HKC8 H3K4me1**
- **HKC8 H3K4me3**
- **FK DHS**
- **HK Chrom**
- **AK H4K4me1**
- **AK H4K4me3**

Extended tag pileup from HKC8 version 1.4.1 2011/02 for every 10 kb

**E**

- **DAC treated HKC 8**

**Relative transcript HKC8**

- **CTL**
- **0.5 DAC**
Supplemental Figure 4
**HEALTHY/NORMAL**

**Correct Cytosine methylation**
**Correct signal strength**

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**CKD**

**Increased cytosine methylation of enhancer decreased signal strength**

**Loss of cytosine methylation of enhancer increased signal strength**

**Variable/incorrect signal strength**

Supplemental Figure 5