***Expanding epigenomics to archived FFPE tissues: An evaluation of DNA repair methodologies*** *Siegel, EM et al*

**Supplementary-Table 4**. Summary of β–value correlation (R2) and discordance (|Δβ|) between FF-FFPE pairs for REPLI-g Ligation and Restore by data normalization: (A) DASEN, (B) minfi-Illumina, (C) SWAN and (D) raw β-values

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| **A. DASEN** | | R2 of β-values  FF-FFPE pairs1 | | | | | | Discordant loci between FF-FFPE pairs2 | | | | | | | | | | | | | Overlap of discordant loci3 | | | | | | | |
|  | | Patient | | | | | | Patient | | | | | | Overall | | | | | % CpG-Loci | | Pairwise by Patient | | | | | | Overall | |
| A | | B | | | C | A | B | | C | | | Mean | ± | | Std | | A&B | A&C | | | B&C | | A&B&C | |
| LIG1 | | 0.857 | | 0.812 | | | 0.900 | 8,254 | 10,338 | | 3,772 | | | 7,455 | ± | | 3,355 | | 1.54% | | 638 | 120 | | | 137 | | 23 | |
| LIG2 | | 0.849 | | 0.810 | | | 0.901 | 9,415 | 10,638 | | 3,834 | | | 7,962 | ± | | 3,627 | | 1.64% | | 728 | 139 | | | 142 | | 27 | |
| LIG3 | | 0.905 | | 0.836 | | | 0.902 | 3,212 | 9,892 | | 4,323 | | | 5,809 | ± | | 3,579 | | 1.20% | | 190 | 65 | | | 156 | | 7 | |
| LIG4 | | 0.860 | | 0.804 | | | 0.898 | 10,250 | 15,168 | | 4,390 | | | 9,936 | ± | | 5,396 | | 2.05% | | 774 | 163 | | | 244 | | 19 | |
| RES1 | | 0.939 | | 0.888 | | | 0.918 | 1,124 | 3,402 | | 3,206 | | | 2,577 | ± | | 1,262 | | 0.53% | | 111 | 51 | | | 65 | | 19 | |
| RES2 | | 0.941 | | 0.875 | | | 0.919 | 1,149 | 4,662 | | 3,053 | | | 2,955 | ± | | 1,759 | | 0.61% | | 146 | 34 | | | 72 | | 14 | |
| RES3 | | 0.938 | | 0.881 | | | 0.920 | 1,214 | 3,969 | | 3,263 | | | 2,815 | ± | | 1,431 | | 0.58% | | 136 | 35 | | | 65 | | 15 | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **B. minfi-Illumina** | R2 of β-values  FF-FFPE pairs1 | | | | | | | Discordant loci between FF-FFPE pairs2 | | | | | | | | | | | | | Overlap of discordant loci3 | | | | | | | |
|  | Patient | | | | | | | Patient | | | | | Overall | | | | | | % CpG-Loci | | Pairwise by Patient | | | | | | Overall | |
| A | | B | | | C | | A | | B | | C | Mean | | | ± | | Std | A&B | | A&C | | B&C | | A&B&C | |
| LIG1 | 0.867 | | 0.814 | | | 0.910 | | 17,598 | | 25,874 | | 6,265 | 16,579 | | | ± | | 9,844 | 3.41% | | 2,711 | | 607 | | 846 | | 232 | |
| LIG2 | 0.858 | | 0.812 | | | 0.911 | | 20,027 | | 27,545 | | 6,352 | 17,975 | | | ± | | 10,745 | 3.70% | | 3,373 | | 744 | | 898 | | 277 | |
| LIG3 | 0.907 | | 0.835 | | | 0.912 | | 8,768 | | 27,245 | | 8,688 | 14,900 | | | ± | | 10,691 | 3.07% | | 1,113 | | 395 | | 1,064 | | 85 | |
| LIG4 | 0.867 | | 0.802 | | | 0.909 | | 20,822 | | 39,294 | | 8,504 | 22,873 | | | ± | | 15,497 | 4.71% | | 3,673 | | 754 | | 1,387 | | 180 | |
| RES1 | 0.940 | | 0.885 | | | 0.925 | | 3,066 | | 7,682 | | 5,105 | 5,284 | | | ± | | 2,313 | 1.09% | | 234 | | 176 | | 188 | | 35 | |
| RES2 | 0.941 | | 0.873 | | | 0.926 | | 3,170 | | 8,614 | | 5,129 | 5,638 | | | ± | | 2,757 | 1.16% | | 319 | | 136 | | 211 | | 35 | |
| RES3 | 0.940 | | 0.877 | | | 0.927 | | 3,461 | | 8,229 | | 5,293 | 5,661 | | | ± | | 2,405 | 1.17% | | 303 | | 141 | | 242 | | 32 | |
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|  |  |  |  |  | |  | |  | |  | | |  | |  | |  |  | |  | |  | |  |
| **C. SWAN** | R2 of β-values  FF-FFPE pairs1 | | | Discordant loci between FF-FFPE pairs2 | | | | | | | | | | | | | | Overlap of discordant loci3 | | | | | | |
|  | Patient | | | Patient | | | | | Overall | | | | | | | % CpG-Loci | | Pairwise by Patient | | | | | Overall | |
| A | B | C | A | B | | C | | Mean | | | ± | | Std | | A&B | A&C | | B&C | | A&B&C | |
| LIG1 | 0.860 | 0.807 | 0.909 | 11,547 | 18,339 | | 4,695 | | 11,527 | | | ± | | 6,822 | | 2.37% | | 1,234 | 248 | | 368 | | 58 | |
| LIG2 | 0.852 | 0.805 | 0.908 | 13,807 | 19,297 | | 4,789 | | 12,631 | | | ± | | 7,325 | | 2.60% | | 1,529 | 257 | | 384 | | 68 | |
| LIG3 | 0.891 | 0.827 | 0.908 | 5,252 | 22,518 | | 5,985 | | 11,252 | | | ± | | 9,764 | | 2.32% | | 471 | 138 | | 607 | | 21 | |
| LIG4 | 0.860 | 0.791 | 0.906 | 15,160 | 30,470 | | 5,850 | | 17,160 | | | ± | | 12,431 | | 3.53% | | 2,150 | 332 | | 742 | | 68 | |
| RES1 | 0.942 | 0.884 | 0.924 | 1,818 | 4,720 | | 4,179 | | 3,572 | | | ± | | 1,543 | | 0.74% | | 122 | 169 | | 115 | | 37 | |
| RES2 | 0.942 | 0.872 | 0.925 | 1,902 | 5,625 | | 3,856 | | 3,794 | | | ± | | 1,862 | | 0.78% | | 209 | 104 | | 101 | | 38 | |
| RES3 | 0.941 | 0.877 | 0.926 | 1,724 | 5,340 | | 3,855 | | 3,640 | | | ± | | 1,818 | | 0.75% | | 153 | 92 | | 108 | | 30 | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  |  |  |  | |  | |  | |  | | |  | |  | |  |  | |  | |  | |  |
| **D. RAW** | R2 of β-values  FF-FFPE pairs1 | | | Discordant loci between FF-FFPE pairs2 | | | | | | | | | | | | | | Overlap of discordant loci3 | | | | | | |
|  | Patient | | | Patient | | | | | Overall | | | | | | | % CpG-Loci | | Pairwise by Patient | | | | | Overall | |
| A | B | C | A | B | | C | | Mean | | ± | | | Std | | A&B | A&C | | B&C | | A&B&C | |
| LIG1 | 0.857 | 0.806 | 0.908 | 10,667 | 16,615 | | 3,859 | | 10,380 | | ± | | | 6,383 | | 2.14% | | 1,158 | 207 | | 286 | | 53 | |
| LIG2 | 0.852 | 0.804 | 0.908 | 12,116 | 16,627 | | 3,854 | | 10,866 | | ± | | | 6,478 | | 2.24% | | 1,297 | 175 | | 276 | | 42 | |
| LIG3 | 0.890 | 0.827 | 0.908 | 4,992 | 18,511 | | 5,472 | | 9,658 | | ± | | | 7,670 | | 1.99% | | 390 | 118 | | 480 | | 19 | |
| LIG4 | 0.861 | 0.790 | 0.905 | 13,616 | 27,107 | | 5,224 | | 15,316 | | ± | | | 11,040 | | 3.15% | | 1,735 | 275 | | 595 | | 49 | |
| RES1 | 0.942 | 0.884 | 0.923 | 1,354 | 3,314 | | 3,503 | | 2,724 | | ± | | | 1,190 | | 0.56% | | 89 | 101 | | 62 | | 18 | |
| RES2 | 0.942 | 0.872 | 0.924 | 1,475 | 4,283 | | 3,235 | | 2,998 | | ± | | | 1,419 | | 0.62% | | 146 | 58 | | 57 | | 19 | |
| RES3 | 0.940 | 0.876 | 0.925 | 1,424 | 4,158 | | 3,258 | | 2,947 | | ± | | | 1,393 | | 0.61% | | 95 | 52 | | 70 | | 15 | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |

1. Pearson Correlation Coefficient comparing FF vs. FFPE β-values for each patient sample, by experimental condition. Mean R2 for DASEN normalization (R2 = 0.883) was not significantly different than mean R2 for minfi-Illumina (R2= 0.887), SWAN (R2= 0.884) and raw β-values (R2= 0.883) by paired Student t-test (p>0.05).
2. The number of discordant CpG-loci defined as |Δβ|>0.3 between FF and FFPE. Percent of CpC-loci with |Δβ|>0.3 out of total CpG-loci evaluated (N=485512) for each condition. Mean number of discordant CpG-loci differed significantly between DASEN normalized data and minfi-Illumina (*p*=0.0001), SWAN (*p* = 0.0014) and raw β-values (*p* = 0.007) by paired Student t-test.
3. Overlap of individual discordant CpG-loci (|Δβ|>0.3) across patient samples (A, B and C), pairwise and overall.