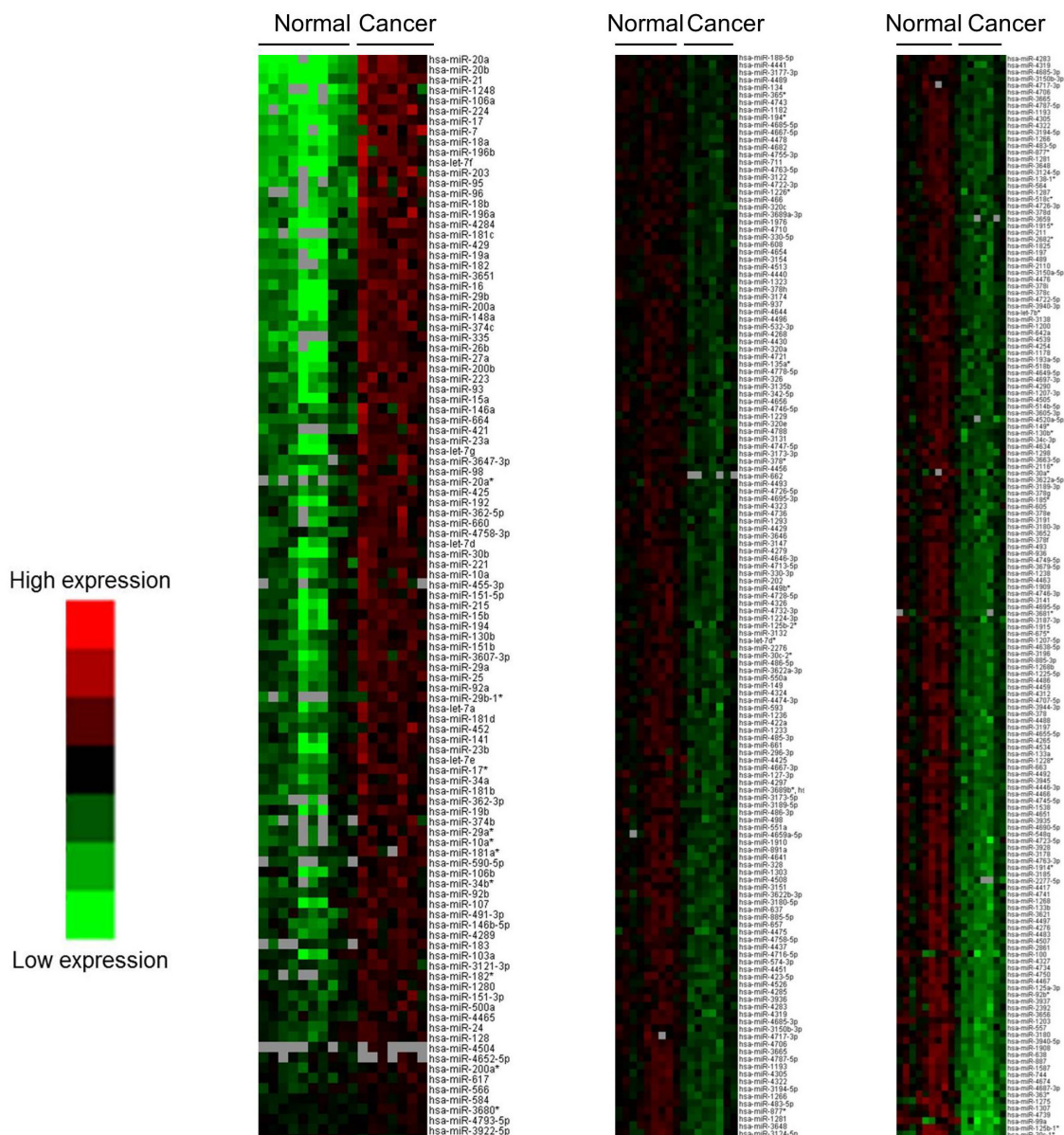
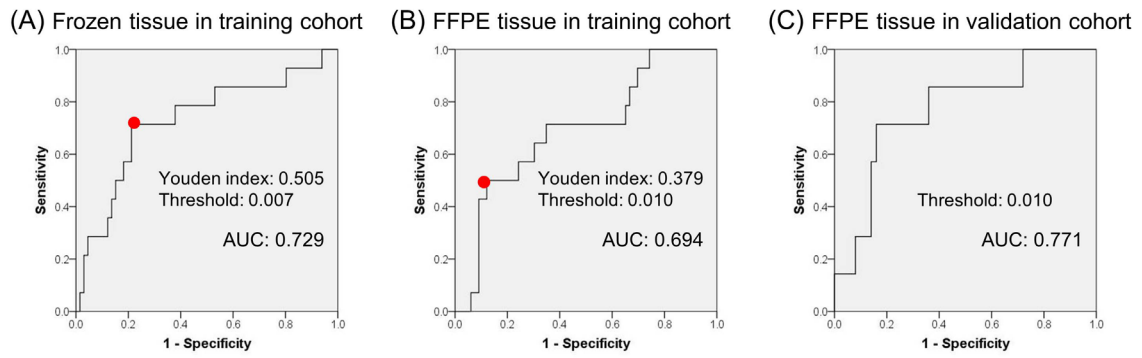


High expression of miR-181c as a predictive marker of recurrence in stage II colorectal cancer

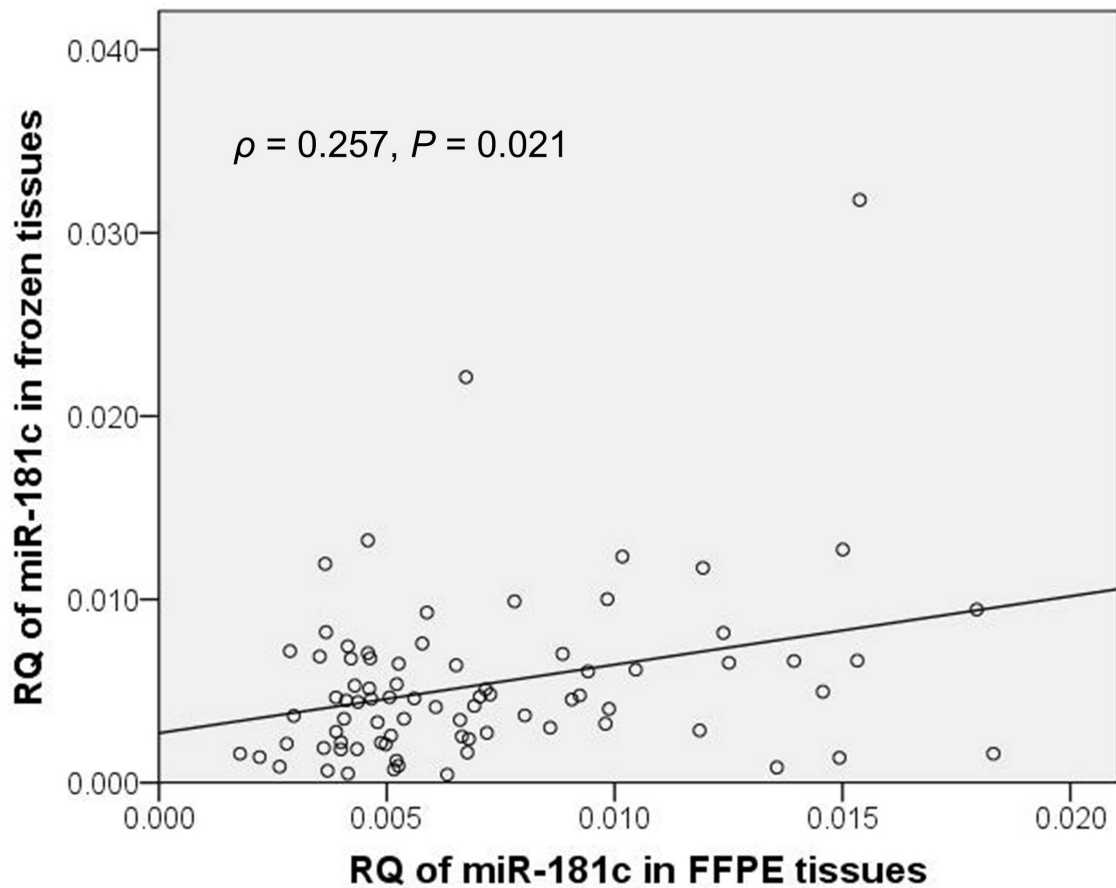
SUPPLEMENTARY FIGURES AND TABLE



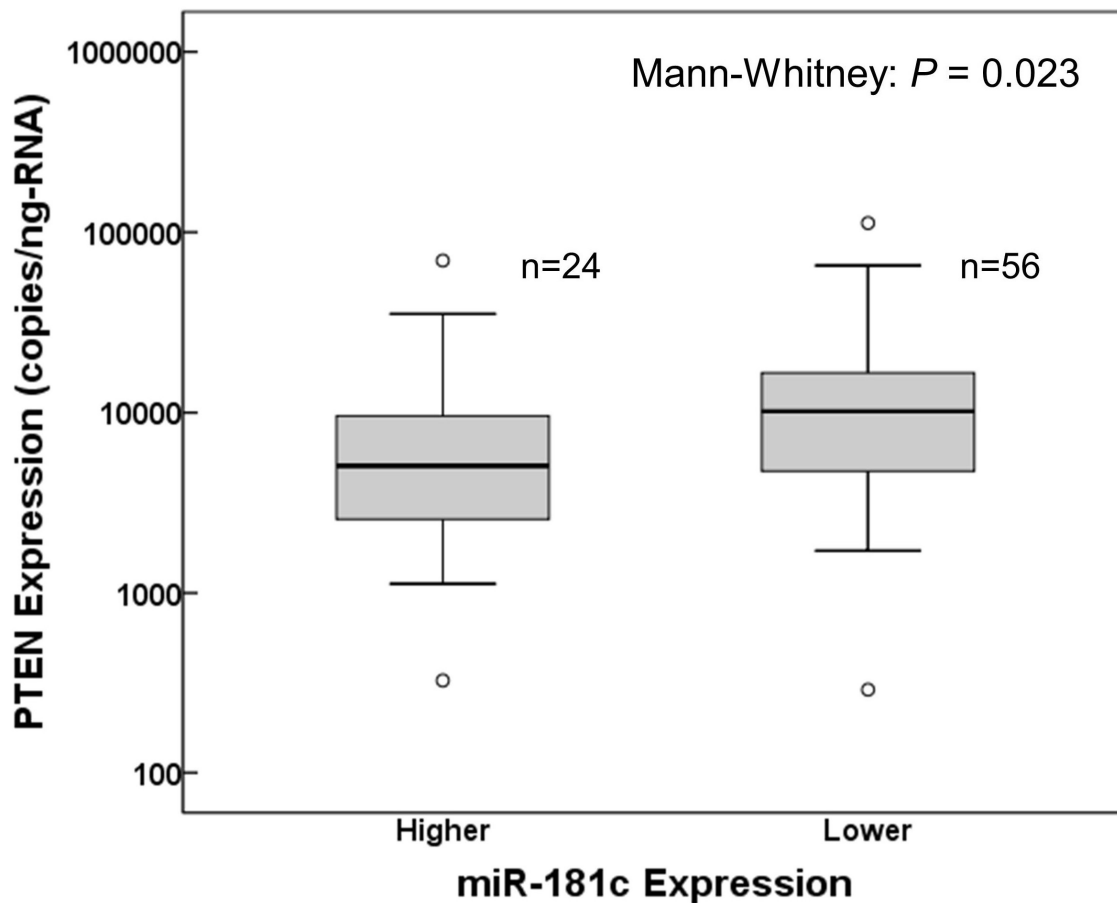
Supplementary Figure 1: Differences in the miRNA expression in the frozen tissues between cancerous and noncancerous tissues using a heat map for the preliminary study. Totally, 394 miRNAs showed different miRNA expressions between cancerous and noncancerous tissues ($P < 0.01$). In the 394 miRNAs, 105 miRNAs showed higher expressions in the cancer tissues than in the normal tissues.



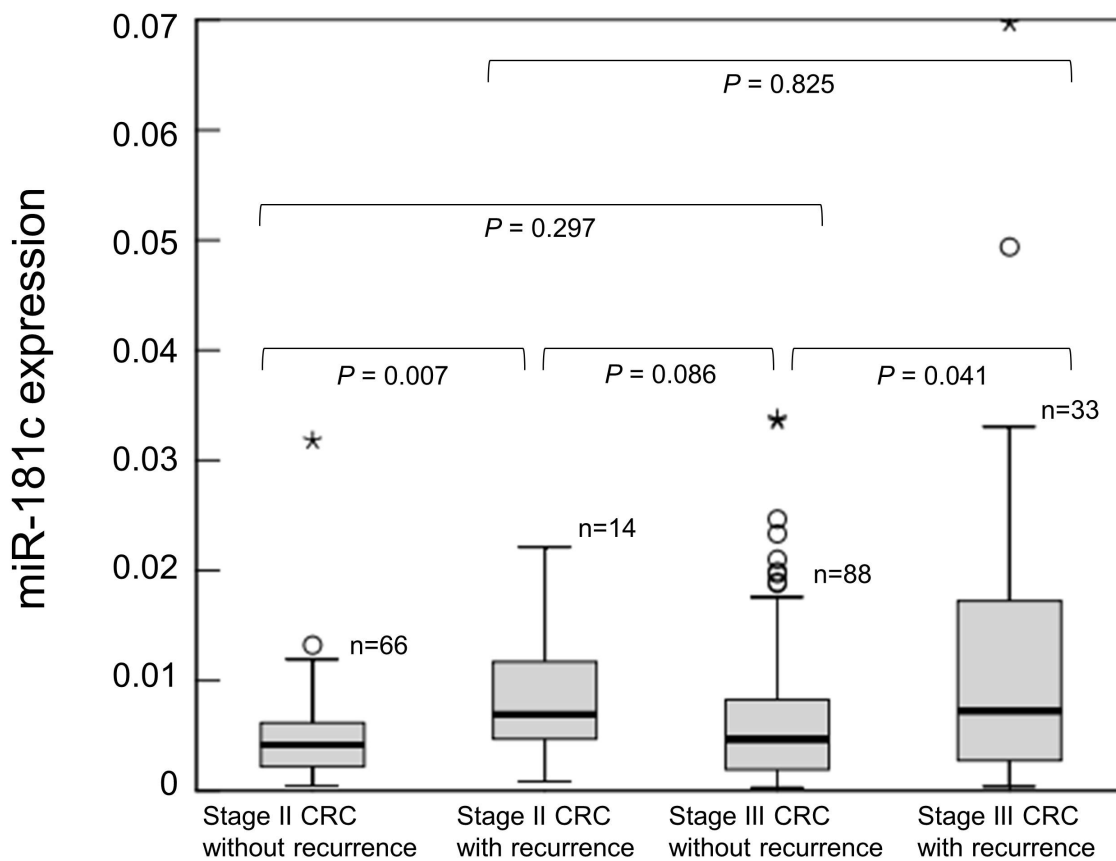
Supplementary Figure 2: ROC curve of miR-181c for recurrence. A. Frozen tissues in the training cohort. **B.** FFPE tissues in the training cohort. **C.** FFPE tissues in the validation cohort.



Supplementary Figure 3: Scatter plots showing the correlation between relative quantification of miR-181c in frozen and matched FFPE tissues obtained from 80 CRC patients in the training cohort. A positive correlation was found by Spearman correlation ($\rho = 0.257, P = 0.021$).



Supplementary Figure 4: The correlation between the expression of miR-181c and PTEN in training cohort using frozen tissues. The expression of PTEN was significantly lower in the patients with higher miR-181c expression than those with lower expression ($P = 0.023$).



Supplementary Figure 5: The expression of miR-181c compared with stage II CRC patients and stage III CRC patients in the preliminary study using frozen tissues. The expression of miR-181c in stage II CRC patients without recurrence was not showed significantly difference from that in the stage III CRC patients without recurrence ($P = 0.297$). Moreover, that in stage II CRC patients with recurrence was similar compared with that in stage III patients with recurrence ($P = 0.825$). In addition, that in stage III CRC patients with recurrence was significantly higher with that in stage III patients without recurrence ($P = 0.048$).

Supplementary Table 1: Ct value of miRNA in the frozen tissue and FFPE tissue of training and validation cohort

| | Training cohort | | | | Validation cohort | | | |
|---------------|------------------------------------|-----------|---------------------------------------|-----------|-----------------------------------|-----------|---------------------------------------|-----------|
| | CRC patients with recurrence, n=14 | | CRC patients without recurrence, n=66 | | CRC patients with recurrence, n=7 | | CRC patients without recurrence, n=50 | |
| | median | range | median | range | median | range | median | range |
| Frozen Tissue | | | | | | | | |
| let-7a | 23.7 | 21.6—26.2 | 24.8 | 21.9—28.8 | | | | |
| let-7d | 26.4 | 25.0—28.1 | 27.1 | 24.4—31.7 | | | | |
| let-7e | 23.1 | 21.0—24.7 | 23.8 | 20.6—26.4 | | | | |
| miR-18b | 36.8 | 31.4—39.8 | 37.4 | 33.1—39.9 | | | | |
| miR-23c | 30.0 | 28.2—34.3 | 31.2 | 27.7—36.1 | | | | |
| miR-26b | 23.3 | 21.8—24.0 | 23.5 | 21.8—25.9 | | | | |
| miR-128a | 26.8 | 26.4—29.0 | 27.6 | 26.1—30.0 | | | | |
| miR-146b | 23.2 | 22.4—25.0 | 23.8 | 21.3—25.1 | | | | |
| miR-148b | 26.2 | 27.3—29.3 | 28.2 | 26.9—30.7 | | | | |
| miR-151-5p | 26.6 | 24.8—28.1 | 27.3 | 25.0—28.1 | | | | |
| miR-181c | 28.6 | 27.4—30.2 | 29.5 | 27.2—32.2 | | | | |
| miR-221 | 23.7 | 22.7—25.7 | 24.1 | 22.3—25.8 | | | | |
| miR-222 | 22.6 | 22.0—24.0 | 22.7 | 21.0—23.8 | | | | |
| miR-361 | 27.2 | 26.5—29.4 | 28.4 | 26.5—31.0 | | | | |
| miR-500 | 29.1 | 27.7—31.1 | 29.5 | 28.0—31.5 | | | | |
| miR-24 | 20.7 | 19.8—21.7 | 21.1 | 19.4—22.8 | | | | |
| RNU6B | 27.7 | 25.2—30.7 | 28.0 | 24.7—33.0 | | | | |
| U6snRNA | 21.3 | 18.2—23.3 | 21.4 | 18.1—23.0 | | | | |
| FFPE tissue | | | | | | | | |
| let-7a | 23.2 | 21.3—23.8 | 23.0 | 21.4—25.3 | | | | |
| let-7d | 24.2 | 23.2—24.8 | 24.2 | 23.5—26.1 | | | | |
| let-7e | 22.5 | 21.4—23.4 | 22.6 | 21.5—24.4 | | | | |
| miR-23c | 27.1 | 25.7—28.8 | 27.0 | 26.0—28.5 | | | | |
| miR-26b | 23.1 | 21.8—23.9 | 23.3 | 22.1—25.3 | | | | |
| miR-128a | 27.4 | 26.7—28.3 | 27.7 | 26.4—28.9 | | | | |
| miR-148b | 27.1 | 26.0—27.7 | 27.4 | 26.1—28.4 | | | | |
| miR-151-5p | 26.3 | 25.2—27.6 | 26.5 | 25.0—35.3 | | | | |
| miR-181c | 27.8 | 26.3—28.9 | 28.0 | 26.5—30.0 | 28.2 | 27.1—29.5 | 29.3 | 27.5—32.0 |
| miR-361 | 27.8 | 26.4—28.8 | 27.8 | 26.2—29.7 | | | | |
| U6snRNA | 20.6 | 20.1—21.8 | 20.7 | 19.4—22.5 | 21.8 | 20.5—22.6 | 21.4 | 19.8—23.9 |

CRC: colorectal cancer,