**Supplementary Material**

Table 1. Primer and probe sequences of ALU fragments.

|  |  |  |  |
| --- | --- | --- | --- |
| Descriptions | Sequences (5'-3') | Amplicon Size  | Tm (℃) |
| ALU60-F | GGAGGCTGAGGCAGGAGAA | 60 bp | 60 |
| ALU60-R | ATCTCGGCTCACTGCAACCT |
| ALU60-P | CGCCTCCCGGGTTCAAGCG |
| ALU115-F | CCTGAGGTCAGGAGTTCGAG | 115 bp | 60 |
| ALU115-R | CCCGAGTAGCTGGGATTACA |
| ALU115-P | CGCCACCACGCCCGGCTAATTT |
| ALU247-F | GTGGCTCACGCCTGTAATC | 247 bp | 60 |
| ALU247-R | CAGGCTGGAGTGCAGTGG |
| ALU247-P | CAGCACTTTGGGAGGCCGAGG |

 F, forward primer; R, reverse primer; P, probe

**Supplementary Material**

Table 2.Diagnostic information of ALU fragments in lung cancer patients.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Cut off (ng/mL) | Sensitivity (% ) | Specificity (% ) | AUC (95% CI) |
| ALU-60 |  |  |  |  |
| Stage I/II | 0.844 | 75.0 | 97.1 | 0.856 (0.730–0.981) |
| Stage III/IV | 0.816 | 48.6 | 88.6 | 0.642 (0.504–0.781) |
| Stage I/IV | 0.753 | 65.5 | 82.9 | 0.720 (0.614–0.826) |
| ALU-115 |  |  |  |  |
| Stage I/II | 0.699 | 80.0 | 94.3 | 0.909 (0.821–0.996) |
| Stage III/IV | 0.702 | 62.9 | 94.3 | 0.844 (0.754–0.934) |
| Stage I/IV | 0.711 | 67.3 | 97.1 | 0.868 (0.796–0.939) |
| ALU-247 |  |  |  |  |
| Stage I/II | 0.794 | 80.0 | 94.3 | 0.932 (0.861–1.000) |
| Stage III/IV | 0.699 | 94.3 | 82.9 | 0.939 (0.887–0.991) |
| Stage I/IV | 0.699 | 92.7 | 82.9 | 0.936 (0.889–0.984) |
| DNA integrity(ALU-247/60) |  |  |  |  |
| Stage I/II | 0.880 | 90.0 | 74.3 | 0.843 (0.739–0.946) |
| Stage III/IV | 0.936 | 94.3 | 82.9 | 0.946 (0.899–0.993) |
| Stage I/IV | 0.880 | 96.4 | 74.3 | 0.909 (0.845–0.972) |
| DNA integrity(ALU-247/115) |  |  |  |  |
| Stage I/II | 1.137 | 70.0 | 65.7 | 0.611 (0.460–0.763) |
| Stage III/IV | 1.185 | 65.7 | 71.4 | 0.650 (0.519–0.780) |
| Stage I/IV | 1.170 | 50.9 | 71.4 | 0.555 (0.429–0.681) |
| DNA integrity(ALU-115/60) |  |  |  |  |
| Stage I/II | 0.834 | 95.0 | 77.1 | 0.898 (0.816–0.980) |
| Stage III/IV | 0.883 | 88.6 | 94.3 | 0.965 (0.930–0.999) |
| Stage I/IV | 0.830 | 96.4 | 77.1 | 0.941 (0.894–0.988) |