**Supplementary Table 1** Correlation of miR-4732-3p expression with the clinicopathological features of the 59 patients.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clinicopathological features | Number (n = 59) | miR-4732-3p | | *p* value |
| Low | High |
| Age (years) |  |  |  |  |
| ≤ 60 | 34 | 16 | 18 | 0.497 |
| > 60 | 25 | 14 | 11 |
| Gender |  |  |  |  |
| Male | 36 | 20 | 16 | 0.366 |
| Female | 23 | 10 | 13 |
| Smoking |  |  |  |  |
| Yes | 40 | 21 | 19 | 0.713 |
| No | 19 | 9 | 10 |
| Pathological types |  |  |  |  |
| Adenocarcinoma | 36 | 19 | 17 | 0.711 |
| Squamous carcinoma | 23 | 11 | 12 |
| Diﬀerentiation degree |  |  |  |  |
| High | 12 | 3 | 9 | 0.053 |
| Moderate | 30 | 15 | 15 |
| Low | 17 | 12 | 5 |
| TNM stage |  |  |  |  |
| I + II | 40 | 14 | 26 | < 0.001 |
| III | 19 | 16 | 3 |
| Tumor size (cm) |  |  |  |  |
| < 3 | 39 | 17 | 22 | 0.119 |
| ≥ 3 | 20 | 13 | 7 |
| Lymph node metastasis |  |  |  |  |
| No | 31 | 8 | 23 | < 0.001 |
| Yes | 28 | 22 | 6 |

**Supplementary Table 2** Primer sequences used for RT-qPCR (human)

|  |  |
| --- | --- |
| Target | Sequence |
| TBX15 | Forward: 5’-TTCCTCGGGAAGGGAGGAAT-3’ |
| Reverse: 5’-CTGCTAGGAACTAGCGCCC-3’ |
| TNFSF11 | Forward: 5’-GAGTTGGCCGCAGACAAGA-3’ |
| Reverse: 5’-GGATCCATCTGCGCTCTGAA-3’ |
| β-actin | Forward: 5’-CTACAATGAGCTGCGTGTGG-3’ |
| Reverse: 5’-TAGCTCTTCTCCAGGGAGGA-3’ |
| miR-4732-3p | Forward: 5’-GCCCTGACCTGTCCTGTTCTG-3’ |
| Reverse: Reverse universal primer |
| U6 | Forward: 5’-CGCTTCGGCAGCACATATAC-3’ |
| Reverse: Reverse universal primer |

**Supplementary Table 3** Primary antibodies used for Western blot

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Cat. | Dilution ratio | Manufactor | Country |
| TBX15 | ab134916 | 1: 1000 | Abcam | UK |
| TNFSF11 | PAB12974 | 1: 1000 | Abnova | China |
| Bax | ab32503 | 1: 1000 | Abcam | UK |
| Bcl-2 | ab32124 | 1: 1000 | Abcam | UK |
| PCNA | ab92552 | 1: 1000 | Abcam | UK |
| Caspase 3 | ab13847 | 1: 500 | Abcam | UK |
| Cle-caspase 3 | ab32042 | 1: 500 | Abcam | UK |
| β-actin | ab8227 | 1: 1000 | Abcam | UK |

**Supplementary Table 4** Primer sequences used for ChIP

|  |  |
| --- | --- |
| Target | Primer sequence (5’-3’) |
| TNFSF11 | Forward: TGACATTGGTTCAGGCATTCAATC |
| Reverse: ACAAAGTACTGCCAGCCTTCC |