Reagents and antibodies

Antibodies against E-cadherin (AF0138), N-cadherin (AF0243), Vimentin (AF1975), and GAPDH (AF1186) were purchased from Beyotime Biotechnology (Shanghai, China). Antibodies against P-SMAD2/3(ab217553) was purchased from Abcam (Cambridge, USA). Antibodies against MMP2(#4022), Twist (#46702), Slug (#9585), Smad2/3(#72255) and Snail (#3895) were purchased from Cell Signaling Technology (Beverly, MA, USA). Antibodies against p62 (55274-1-AP) and Nrf2(16396-1-AP) were purchased from Proteintech Group (Chicago, USA). Secondary antibodies [HRP-labeled Goat Anti-Rabbit IgG(H+L) or HRP-labeled Goat Anti-Mouse IgG(H+L))] for western blot were obtained from Beyotime Biotechnology (Shanghai, China).

Table S1

The primer sequence used in this study

|  |  |
| --- | --- |
| Gene name | Sequence |
| Oligo1-SQSTM1 | Forward: 5'-CACCGCACCGTGAAGGCCTACCTTC-3' |
|  | Reverse: 5'-AAACGAAGGTAGGCCTTCACGGTGC-3' |
| Oligo1-Nrf2 | Forward: 5'-AAGAGAGGGGTCAGCAATGA-3' |
|  | Reverse: 5'-5'-TTATCTGAACCCACCACCTGG-3' |
| E-cadherin | Forward: 5'-TACACTGCCCAGGAGCCAGA-3' |
|  | Reverse: 5'-TGGCACCAGTGTCCGGATTA-3' |
| N-cadherin | Forward:5'- CGAATGGATGAAAGACCCATCC-3' |
|  | Reverse: 5'- GGAGCCACTGCCTTCATAGTCAA-3' |
| Vimentin | Forward:5'- GACGCCATCAACACCGAGTT-3' |
|  | Forward:5'-CTTTGTCGTTGGTTAGCTGGT-3' |
| Snail | Forward:5'-GAGGCGGTGGCAGACTAG-3' |
|  | Forward:5'-GACACATCGGTCAGACCAG-3' |

Table S2. Criteria for judging immunohistochemical results

|  |  |
| --- | --- |
| Positive cells %(a) | Staining intensity score (b) |
| % | score | Staining intensity | score |
| ≤5 | 0 | None or extremely light staining | 0 |
| 6-25 | 1 | Light brownish yellow | 1 |
| 26-50 | 2 | brownish yellow | 2 |
| 51-75 | 3 | Deep brownish yellow | 3 |
| ≥76 | 4 |  |  |
| Tatol score=a+b |

**Supplementary figures**

**Figure S1. Nrf2 expression was higher in Esophageal carcinoma (ESCA) compared to the matched normal tissues (GEPIA).**