Supplemental Tables

Supplemental Table 1. Expression rates of immunohistochemical staining of NDRG2 versus p-Akt or p-PTEN in tumors from OSCC patients

|  |  |  |
| --- | --- | --- |
|  | p-Akt | p-PTEN |
|  | Negative | Positive | p value | Negative | Positive | p value |
| NDRG2 |  |  | 0.097 |  |  | 0.312 |
| Negative | 2 | 32 | p<0.001 | 7 | 27 | p<0.001 |
| Positive | 2 | 6 |  | 3 | 5 |  |

Supplemental Table 2. Incidence of tumour formation in the tongue of

Ndrg2-deficient mice treated with 4-NQO for 16 weeks

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Papilloma | SCC | Total tumors |
| Type of mice | No. of the mice | Incidene (%) | Multipliciy (No.) | Incidene (%) | Multipliciy (No.) | Incidene (%) | Multipliciy (No.) |
| Wild-type | 16 | 8 (50) | 0.8 ±1.0 | 2 (13) | 0.1±0.3 | 8 (50) | 0.9±1.1 |
| Ndrg2+/- | 21 | 15 (71) | 1.1±1.1 | 6 (29) | 0.3 ±0.6 | 16 (76) \* |  1.5±1.3\* |
| Ndrg2-/- | 10 | 8 (80) | 1.6±1.4 | 4 (40) | 0.5 ±0.5 |  9 (90) \* |  2.1±1.7\* |

\*: p<0.05 vs Wild type

Supplemental Table 3. Frequency of SCC (squamous cell carcinoma) tumour formation in the tongue of Ndrg2-deficient mice treated with 4-NQO for 16 weeks

|  |  |  |  |
| --- | --- | --- | --- |
| Type of mice | No. of mice | Papillary type | Invasive type |
| Incidence (%) Multiplicity (No.) | Incidence (%) Multiplicity(No.) |
| Wild-type | 16 | 2 (13) | 0.1±0.3 | 0 (0) | 0.0±0.0 |
| Ndrg2+/- | 21 | 1 (5) | 0.0±0.2 |  5 (24) \* |  0.3±0.6\* |
| Ndrg2-/- | 10 | 2 (20) | 0.2±0.4 |  3 (30) \* |  0.3±0.5\* |

\*: p<0.05 vs Wild type

Supplemental Table 4. Incidence of tumour formation in wild type and Ndrg2-deficient mice after treatment with 4-NQO for 30 weeks

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of mice  | No. of mice  | Papilloma  | SCC  | Total tumours  |
|  Incidence Multiplicity  (%) (No.) |  Incidence Multiplicity  (%) (No.) | Incidence Multiplicity  (%) (No.) |
| Wild-type  | 9  | 5 (56)  | 1.7±2.3 | 6 (67)  | 1.0±0.6  | 7 (78)  | 1.7±1.0 |
| Ndrg2+/-  | 9  | 8 (89)  | 2.3±2.3 | 7 (78)  | 1.6±0.9  | 8 (89)  | 3.3±1.2 |
| Ndrg2-/-  | 12  | 7 (58)  | 1.2±1.2 | 12 (100)  |  2.2±1.3\*  | 12 (100)  |  3.3±1.0\*\* |

\*, \*\*: p<0.05, p<0.01 vs Wild type, respectively

Supplemental Table 5. Incidence of tumour development in wild-type and Ndrg2-deficient mice treated with 4-NQO for 30 weeks

|  |  |  |  |
| --- | --- | --- | --- |
| Type of mice  | No. of mice  | Papillary type  | Invasive type  |
|  Incidence (%) Multiplicity (No.)  |  Incidence (%) Multiplicity (No.)  |
| Wild-type  | 9  |  2 (22) 0.3±0.5 |  4 (44) 0.6±0.5  |
|  Ndrg2+/-  | 9  |  4 (44) 0.8±0.9  |  5 (56) 0.9±0.8  |
|  Ndrg2-/-  | 12  |  7 (58) 0.7±0.7  |  10 (83) 1.5±1.0\*  |

\*: p<0.05 vs Wild type

Supplemental Table 6. Comparison of the frequency of cervical lymph node metastasis between wild-type control and Ndrg2-deficient mice

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | No of cervical lymph nodes in whole group | No. of lymph nodes per mouse |
|  | Total numbers | With metastasis (%) | Total numbers | With metastasis (%) | Without metastasis (%) | With Metastasis | Without metastasis |
| Wild-type | 9 | 3 (33) | 28 | 12 (43) | 16 (57) | 1.33±2.06 | 1.78±1.56 |
| Ndrg2+/- | 9 | 4 (44) | 21 | 15 (71) | 6 (29) | 1.67±2.06 | 0.67±0.86 |
| Ndrg2-/- | 12 | 7 (58) | 34 |  27 (79)\* |  7 (21) \* |  2.25±2.30\*\* | 0.58±0.90 |

\*: p<0.05 vs Wild type

\*\*: p<0.05 vs Without metastasis