|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Gene*** | ***Primers*** | ***Sequences*** | ***Gene*** | ***Primers*** | ***Sequences*** |
| *lgr5* | Forward | CGTAGGCAACCCTTCTCTTATC | *cldn1* | Forward | GCTGTCATTGGGGGCATAATA |
|  | Reverse | GCACCATTCAAAGTCAGTGTTC |  | Reverse | GGGGTCAAGGGGTCATAGAAT |
| *mki67* | Forward | GAGGAGAAACGCCAACCAAGAG | *cldn2* | Forward | GGGCTGTTAGGCACATCCAT |
|  | Reverse | TTTGTCCTCGGTGGCGTTATCC |  | Reverse | GTCGCACACTCCATCCAGAG |
| *gadd45a* | Forward | TGCGAGAACGACATCAACAT | *cldn7* | Forward | AATGTACGACTCGGTGCTCG |
|  | Reverse | TCCCGGCAAAAACAAATAAG |  | Reverse | GTGTGCACTTCATGCCCATC |
| *mpg* | Forward | TGCATTTCTGGGACAGGTTCTT | *cldn15* | Forward | CGTGGGCAACATGGATCTCT |
|  | Reverse | GAGTTCTGTTCCATCAGCGAGT |  | Reverse | CCACGAGATAGCCACCATCC |
| *ogg1* | Forward | TGAGCTGCGTCTGGACTTGGTT | *tjp1* | Forward | GCGCGGAGAGAGACAAGATG |
|  | Reverse | CTCCGTCTGAGTCAGTGTCCAT |  | Reverse | CTGTGAAGCGTCACTGTGTG |
| *xpc* | Forward | GGTATTGTCGTGGAGAAGCAGTC | *tlr4* | Forward | AGCTTCTCCAATTTTTCAGAACTTC |
|  | Reverse | CACGGTTAGAGAAGCCTTTCACC |  | Reverse | TGAGAGGTGGTGTAAGCCATGC |
| *msh2* | Forward | GAACAAAGGCGAGTATGAAGAGG | *cd14* | Forward | TTGAACCTCCGCAACGTGTCGT |
|  | Reverse | GCGTCTAAGTGAGCCAGCACAT |  | Reverse | CGCAGGAAAAGTTGAGCGAGTG |
| *xrcc6* | Forward | GCAGTCTACTCCTGCCTAGTGA | *gpx1* | Forward | CGCTCTTTACCTTCCTGCGGAA |
|  | Reverse | ACCTGGCTCATCAAACCGCTTC |  | Reverse | AGTTCCAGGCAATGTCGTTGCG |
| *rad51* | Forward | AGCAGTAGCTGAGAGATACGGT | *gpx2* | Forward | GAGGAACAACTACCCGGGACTA |
|  | Reverse | CCCTCGCGCATATGCTACATTA |  | Reverse | ACCCCCAGGTCGGACATACT |
| *vil1* | Forward | CTCAAGACTCCGTCCTGCTG | *sod1* | Forward | GGTGAACCAGTTGTGTTGTCAGG |
|  | Reverse | CCACTTGTTTCTCCGTCCGA |  | Reverse | ATGAGGTCCTGCACTGGTACAG |
| *muc2* | Forward | CTACCATTACCACCACTAC | *sod2* | Forward | TAACGCGCAGATCATGCAGCTG |
|  | Reverse | GTCTCTCGATCACCACCATTT |  | Reverse | AGGCTGAAGAGCGACCTGAGTT |
| *chgA* | Forward | CAGGGACACTATGGAGAAGAGA | *ccl20* | Forward | GTGGGTTTCACAAGACAGATGGC |
|  | Reverse | CTCTTGGTTAGGCTCTGGAAAG |  | Reverse | CCAGTTCTGCTTTGGATCAGCG |
| *alpi* | Forward | CCAGCAGTAACTCACCTCATGG | *ccl5* | Forward | CCTGCTGCTTTGCCTACCTCTC |
|  | Reverse | GAAGCCTTGTGGATTCCTGCTG |  | Reverse | ACACACTTGGCGGTTCCTTCGA |
| *krt20* | Forward | GGATTCGAGGTTCAAGTCACGG | *il18* | Forward | GACAGCCTGTGTTCGAGGATATG |
|  | Reverse | TCTAGGTTGCGCTCCAGAGACT |  | Reverse | TGTTCTTACAGGAGAGGGTAGAC |
| *lyz* | Forward | GTGCCTGTCCTGATCTTTCT | *nfkb1* | Forward | GCTGCCAAAGAAGGACACGACA |
|  | Reverse | GATTTGCTCCTGTGGTTATTGG |  | Reverse | GGCAGGCTATTGCTCATCACAG |
| *reg3g* | Forward | CGTGCCTATGGCTCCTATTGCT | *nfkb2* | Forward | TGCTGATGGCACAGGACGAGAA |
|  | Reverse | TTCAGCGCCACTGAGCACAGAC |  | Reverse | GTTGATGACGCCGAGGTACTGA |
| *reg3b* | Forward | ATGCTGCTCTCCTGCCTGATG | *rela* | Forward | TCCTGTTCGAGTCTCCATGCAG |
|  | Reverse | CTAATGCGTGCGGAGGGTATATTC |  | Reverse | GGTCTCATAGGTCCTTTTGCGC |
| *jama* | Forward | CGCGTCGGGATTGTAACTGT | *bax* | Forward | AGGATGCGTCCACCAAGAAGCT |
|  | Reverse | CACCGAACCCTTGCCTTGTA |  | Reverse | TCCGTGTCCACGTCAGCAATCA |
| *s100a8* | Forward | TCAAGACATCGTTTGAAAGGAAATC | *hes1* | Forward | TGAAGCACCTCCGGAACCT |
|  | Reverse | GGTAGACATCAAATGAGGTTGCTC |  | Reverse | CAACACGCTCGGGTCTGTG |
| *s100a9* | Forward | AAAGGCTGTGGGAAGTAATTAAGAG | *atoh1* | Forward | AACTGTCCCTCCTGGATAGCA |
|  | Reverse | GCCATTGAGTAAGCCATTCCC |  | Reverse | CCCTGCAAAGTGGGAGTCAG |
| *occl* | Forward | GTGAGCACCTTGGGATTCCG | *rpl19* | Forward | GAAGGTCAAAGGGAATGTGTTCA |
|  | Reverse | TTCAAAAGGCCTCACGGACA |  | Reverse | CCTTGTCTGCCTTCAGCTTGT |

**Table S1**. List of the primers used for the q-PCR.



**Figure S1.** Relative expression of tight junction genes in EDMs exposed to *fg*-TiO2. Relative expressions of *jama*, *occl*, *tjp1* and *cldn2* in EDMs exposed to *fg*-TiO2 at 0.1, 1 and 10 µg/ml for 24h. Data are expressed as mean ± SEM. \* p<0.05 by one-way ANOVA followed by post hoc Dunnett’s multiple comparison test or nonparametric Kruskal wallis test followed by post hoc Dunn’s multiple comparison test.



**Figure S2.** Relative expression of genes involved in DNA repair pathway and redox homeostasis in EDMs exposed to *fg*-TiO2. Relative expressions of genes involved in DNA repair pathways **(a)** and in redox homeostasis **(b)** in EDMs exposed to*fg*-TiO2 at 0.1, 1 and 10 µg/ml for 24h. Data are expressed as mean ± SEM. \* p<0.05 by one-way ANOVA followed by post hoc Dunnett’s multiple comparison test or nonparametric Kruskal wallis test followed by post hoc Dunn’s multiple comparison test (ns: not significant).