**Genetic variations at rs3129891 and rs77005575 are associated with reduced expression of enteric α-defensins in IBD patients**

**SUPPLEMENTARY FIGURES AND TABLES**

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**Figure S1** No effect of genotypes at rs2066842 on colonic mRNA expression of HD5(A), HD6(B), Lysozyme(C), SPLA2(D) in CD patients. Relative mRNA levels were determined using real-time PCR and normalized to 18SrRNA. HD5, human ɑ-defensin 5; HD6, human ɑ-defensin 6; SPLA2, secretory phospholipase A2; CD, Crohn’s disease; Ctrl, controls; NS, not significant; (number of patients). Data are shown as the mean ± SEM.

**Table S1 Primers used in this study**

|  |  |
| --- | --- |
| **Name** | **Primer Sequence (5'to3')** |
| **rs35261698 F** | ACGTTGGATGCCACATATCACAACTGGGAG |
| **rs35261698 R** | ACGTTGGATGAAGAACCAGAGCTAGTTGGG |
| **rs35261698 U** | GATGCGAGCCACTTA |
| **rs2066842 F** | ACGTTGGATGCAGAGAATGTCCTGGAGGTC |
| **rs2066842 R** | ACGTTGGATGAGGGTGGCTGGGCTCTTCT |
| **rs2066842 U** | GTGGGCATGGCTGGA |
| **rs3197999 F** | ACGTTGGATGAATCCCCAACCGAGTATGC |
| **rs3197999 R** | ACGTTGGATGTGACCTTGTGAATCCAGTCC |
| **rs3197999 U** | TGTATGCGCAAGGTCC |
| **rs4151651 F** | ACGTTGGATGTAGAAGGAGTCGATGCTGAG |
| **rs4151651 R** | ACGTTGGATGTGTCCCTTCTCCATTTTCCC |
| **rs4151651 U** | AGGCTGAGGATGGGCAC |
| **rs11209026 F** | ACGTTGGATGAAATTCTGCAAAAACCTAC |
| **rs11209026 R** | ACGTTGGATGGCTGTTATGTTGTCAATTC |
| **rs11209026 U** | GCAAAAACCTACCCAGTT |
| **rs11805303 F** | ACGTTGGATGATGCTTGCAAACAGAGAAC |
| **rs11805303 R** | ACGTTGGATGTTCCTCTTAGTCGGAGCTTT |
| **rs11805303 U** | AACAGAGAACTGTTTCCT |
| **rs10885395 F** | ACGTTGGATGGTTTCTGACATTTAGCATTTG |
| **rs10885395 R** | ACGTTGGATGGAAATGTTAAGTCCCACTAGG |
| **rs10885395 U** | GCATAAAAAGTCGTTTTGG |
| **rs9268832 F** | ACGTTGGATGCTATGGAAGCGCGCATACTC |
| **rs9268832 R** | ACGTTGGATGAGAGCGGATGCGGTTTGTG |
| **rs9268832 U** | CCCCATCCTTCCGGTGTGGA |
| **rs2241880 F** | ACGTTGGATGTAGCTGGTACCCTCACTTCT |
| **rs2241880 R** | ACGTTGGATGTCCCAGTCCCCCAGGACAAT |
| **rs2241880 U** | ATTACCAGAACCAGGATGAG |
| **rs10885394 F** | ACGTTGGATGAGGAGGAGCAGACTGATTTG |
| **rs10885394 R** | ACGTTGGATGGTGTTTTGGGAGCTGGGTCT |
| **rs10885394 U** | GGGGAATGGAATTATGTTAA |
| **rs2066847 F** | ACGTTGGATGCTTCCAGGATGGTGTCATTC |
| **rs2066847 R** | ACGTTGGATGCCAGGTTGTCCAATAACTGC |
| **rs2066847 U** | TGGTGTCATTCCTTTCAAGGG |
| **rs2172252 F** | ACGTTGGATGCCTTTGTACTCCTTATTCCC |
| **rs2172252 R** | ACGTTGGATGTCCTGGTGGGAAAGTGTTAC |
| **rs2172252 U** | GATTCCCCCTGGCCCAGCTTGT |
| **rs7234029 F** | ACGTTGGATGCCCAGTTATGACACTAGCAG |
| **rs7234029 R** | ACGTTGGATGCCAAACCCCTCATTTATGGC |
| **rs7234029 U** | ATAGCAGATATTGTAACATCAG |
| **rs3129891 F** | ACGTTGGATGTGTGACATTCTGAAAAAGGC |
| **rs3129891 R** | ACGTTGGATGTACTCATCCTTCCTTCCTCC |
| **rs3129891 U** | AGAGATCAGAGAATGCCAATGG |
| **rs3115674 F** | ACGTTGGATGATTATAGGCGTGAGCCACTG |
| **rs3115674 R** | ACGTTGGATGGCAATATATACCCTCCACCC |
| **rs3115674 U** | CTGCCAGTTTTTGTGTTTTTTTT |
| **rs77005575 F** | ACGTTGGATGTCAAAGATTTTCTGGTTGGC |
| **rs77005575 R** | ACGTTGGATGCACAACCTCTTATCTTAACC |
| **rs77005575 U** | GATTTATCTAAAGATCTGGATTCA |
| **rs2066844 F** | ACGTTGGATGAGTGCCAGACATCTGAGAAG |
| **rs2066844 R** | ACGTTGGATGCCAGACACCAGCGGGCACA |
| **rs2066844 U** | GAGAAGGCCCTGCTC |
| **rs6930777 F** | ACGTTGGATGGATTCATGAGATAGAGCACAC |
| **rs6930777 R** | ACGTTGGATGTTATTTCTGCCGTACCCCTC |
| **rs6930777 U** | GAGCACACTATGCACA |
| **rs3814570 F** | ACGTTGGATGAGCACCGAGGTTTCCAAAAG |
| **rs3814570 R** | ACGTTGGATGAACAGTTTTGCTGAAACCCC |
| **rs3814570 U** | AGAAAGCAAATTTGCCAT |
| **rs12212067 F** | ACGTTGGATGAATATTGTTCCCTAAATGC |
| **rs12212067 R** | ACGTTGGATGTGGAAGGAGATCACACCAAC |
| **rs12212067 U** | AAATGCTTTTTAAGGGGG |
| **rs2066845 F** | ACGTTGGATGCTGACACTGTCTGTTGACTC |
| **rs2066845 R** | ACGTTGGATGGCCCCCTCGTCACCCACTC |
| **rs2066845 U** | TTGGCCTTTTCAGATTCTGG |
| **rs2542151 F** | ACGTTGGATGGCAAGAAGGTGTGAAGTTAG |
| **rs2542151 R** | ACGTTGGATGCACTTCGCCAATGCCTTGGT |
| **rs2542151 U** | AGAATGAGAGTCTCAGGAAG |
| **HD5 F** | GCCATCCTTGCTGCCATTC |
| **HD5 R** | AGATTTCACACACCCCGGAGA |
| **HD6 F** | CCTCACCATCCTCACTGCTGTTC |
| **HD6 R** | CCATGACAGTGCAGGTCCCATA |
| **Lysozyme F** | AAAACCCCAGGAGCAGTTAAT |
| **Lysozyme R** | CAACCCTCTTTGCACAAGCT |
| **SPLA2 F** | TGACGACAGGAAAGGAAGCCGCAC |
| **SPLA2 R** | AGGGAAGAGGGGACTCAGCAACGAG |
| **18SrRNA F** | CCTGCGGCTTAATTTGACTC |
| **18SrRNA R** | ATGCCAGAGTCTCGTTCGTT |

**Table S2 Colonic mRNA expression of HD5, HD6, Lysozyme and SPLA2 was not affected by mutant genotypes at rs2241880, rs9268832, rs11805303, rs12212067, rs2542151, rs7234029, rs35261698, rs2172252, rs3197999, rs10885394, rs10885395 or rs3814570 in IBD patients**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **rs2241880-UC** | | | | | | | | | | | | | | | | |
|  | | | | **AA (n=18)** | | | **AG (n=19)** | | | **GG (n=5)** | | | | **F** | | ***P*** |
| **HD5** | **Inflamed** | | | 1.97E-04±5.45E-05 | | | 1.03E-04±4.29E-05 | | | 1.99E-04±5.33E-05 | | | | 1.14 | | 0.32 |
| **Non-inflamed** | | | 3.79E-041.28E-04 | | | 1.54E-049.82E-05 | | | 6.56E-05±9.74E-06 | | | | 1.49 | | 0.23 |
| **HD6** | **Inflamed** | | | 4.41E-05±1.28E-05 | | | 2.17E-05±1.00E-05 | | | 5.80E-05±1.37E-05 | | | | 1.65 | | 0.21 |
| **Non-inflamed** | | | 5.51E-05±1.45E-05 | | | 3.16E-05±1.54E-05 | | | 3.17E-05±1.52E-05 | | | | 0.74 | | 0.48 |
| **Lysozyme** | **Inflamed** | | | 9.58E-05±1.16E-05 | | | 1.29E-04±2.01E-05 | | | 1.66E-04±6.74E-06 | | | | 2.48 | | 0.09 |
| **Non-inflamed** | | | 1.04E-04±1.92E-05 | | | 1.57E-04±1.82E-05 | | | 1.42E-04±5.45E-06 | | | | 2.31 | | 0.11 |
| **SPLA2** | **Inflamed** | | | 2.09E-04±3.55E-05 | | | 1.48E-04±3.01E-05 | | | 2.73E-04±1.39E-04 | | | | 1.34 | | 0.27 |
| **Non-inflamed** | | | 2.54E-04±3.67E-05 | | | 1.60E-04±3.47E-05 | | | 1.81E-04±7.80E-05 | | | | 1.71 | | 0.19 |
| **rs2241880-CD** | | | | | | | | | | | | | | | | |
|  | | | | **AA (n=17)** | | | **AG (n=36)** | | | **GG (n=7)** | | | | **F** | | ***P*** |
| **HD5** | **Inflamed** | | | 1.01E-03±4.40E-04 | | | 6.07E-04±1.05E-04 | | | 2.16E-04±1.99E-04 | | | | 1.47 | | 0.23 |
| **Non-inflamed** | | | 9.80E-05±3.73E-05 | | | 3.27E-04±7.81E-05 | | | 2.04E-04±1.49E-04 | | | | 1.97 | | 0.15 |
| **HD6** | **Inflamed** | | | 4.65E-04±1.79E-04 | | | 3.47E-04±6.98E-05 | | | 2.27E-04±2.16E-04 | | | | 0.53 | | 0.58 |
| **Non-inflamed** | | | 4.64E-05±2.20E-05 | | | 1.44E-04±2.88E-05 | | | 1.27E-04±8.66E-05 | | | | 2.12 | | 0.12 |
| **Lysozyme** | **Inflamed** | | | 1.11E-04±1.80E-05 | | | 1.57E-04±2.07E-05 | | | 1.03E-04±4.73E-05 | | | | 1.32 | | 0.27 |
| **Non-inflamed** | | | 1.10E-04±1.61E-05 | | | 1.51E-04±2.62E-05 | | | 1.02E-04±3.80E-05 | | | | 0.78 | | 0.46 |
| **SPLA2** | **Inflamed** | | | 1.35E-04±2.92E-05 | | | 1.25E-04±2.66E-05 | | | 2.15E-04±8.65E-05 | | | | 0.93 | | 0.39 |
| **Non-inflamed** | | | 6.85E-05±9.41E-06 | | | 7.67E-05±1.32E-05 | | | 1.12E-04±2.68E-05 | | | | 1.01 | | 0.37 |
| **rs9268832-UC** | | | | | | | | | | | | | | | | |
|  | | | | **CC (n=6)** | | | **CT (n=21)** | | | **TT (n=15)** | | | | **F** | | ***P*** |
| **HD5** | **Inflamed** | | | 2.91E-04±1.19E-04 | | | 1.29E-04±4.54E-05 | | | 1.36E-04±3.58E-05 | | | | 1.62 | | 0.21 |
| **Non-inflamed** | | | 4.80E-04±2.90E-04 | | | 3.07E-04±1.14E-04 | | | 4.92E-05±1.17E-05 | | | | 2.41 | | 0.10 |
| **HD6** | **Inflamed** | | | 5.38E-05±2.58E-05 | | | 2.46E-05±1.02E-05 | | | 4.38E-05±1.12E-05 | | | | 1.20 | | 0.31 |
| **Non-inflamed** | | | 7.60E-05±3.49E-05 | | | 4.12E-05±1.33E-05 | | | 2.87E-05±1.29E-05 | | | | 1.28 | | 0.29 |
| **Lysozyme** | **Inflamed** | | | 1.54E-04±4.13E-05 | | | 9.95E-05±1.15E-05 | | | 1.34E-04±1.93E-05 | | | | 1.94 | | 0.16 |
| **Non-inflamed** | | | 1.48E-04±3.08E-05 | | | 1.25E-04±1.44E-05 | | | 1.37E-04±2.54E-05 | | | | 0.23 | | 0.80 |
| **SPLA2** | **Inflamed** | | | 1.14E-04±4.87E-05 | | | 1.66E-04±1.91E-05 | | | 2.51E-04±6.29E-05 | | | | 1.90 | | 0.16 |
| **Non-inflamed** | | | 1.24E-04±4.80E-05 | | | 1.79E-04±1.90E-05 | | | 2.67E-04±5.76E-05 | | | | 2.37 | | 0.11 |
| **rs9268832-CD** | | | | | | | | | | | | | | | | |
|  | | | | **CC (n=27)** | | | **CT (n=24)** | | | | **TT (n=9)** | | | **F** | | ***P*** |
| **HD5** | **Inflamed** | | | 6.53E-04±1.27E-04 | | | 7.55E-04±3.17E-04 | | | | 5.28E-04±2.56E-04 | | | 0.14 | | 0.87 |
| **Non-inflamed** | | | 3.57E-04±9.29E-05 | | | 1.71E-04±6.01E-05 | | | | 1.25E-04±1.16E-04 | | | 1.89 | | 0.16 |
| **HD6** | **Inflamed** | | | 5.12E-04±1.09E-04 | | | 2.60E-04±1.12E-04 | | | | 2.15E-04±1.02E-04 | | | 1.86 | | 0.16 |
| **Non-inflamed** | | | 1.71E-04±3.71E-05 | | | 6.84E-05±1.76E-05 | | | | 6.68E-05±6.50E-05 | | | 3.11 | | 0.05 |
| **Lysozyme** | **Inflamed** | | | 1.36E-04±2.26E-05 | | | 1.57E-04±2.25E-05 | | | | 9.16E-05±3.58E-05 | | | 1.09 | | 0.34 |
| **Non-inflamed** | | | 1.34E-04±2.34E-05 | | | 1.53E-04±3.05E-05 | | | | 8.31E-05±3.62E-05 | | | 0.92 | | 0.41 |
| **SPLA2** | **Inflamed** | | | 1.65E-04±3.47E-05 | | | 1.09E-04±2.10E-05 | | | | 1.38E-04±7.03E-05 | | | 0.80 | | 0.46 |
| **Non-inflamed** | | | 9.27E-05±1.24E-05 | | | 7.19E-05±1.59E-05 | | | | 5.39E-05±1.87E-05 | | | 1.25 | | 0.29 |
| **rs11805303-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **CT (n=25)** | | | **TT (n=17)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.54E-04±4.40E-05 | | | 1.56E-04±4.40E-05 | | | | | 0.97 | | | |
| **Non-inflamed** | | | 3.29E-04±1.16E-04 | | | 1.08E-04±3.88E-05 | | | | | 0.08 | | | |
| **HD6** | | **Inflamed** | | | 3.73E-05±1.13E-05 | | | 3.32E-05±8.42E-06 | | | | | 0.79 | | | |
| **Non-inflamed** | | | 4.73E-05±1.36E-05 | | | 3.35E-05±1.26E-05 | | | | | 0.48 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.06E-04±1.24E-05 | | | 1.40E-04±1.92E-05 | | | | | 0.12 | | | |
| **Non-inflamed** | | | 1.33E-04±1.62E-05 | | | 1.32E-04±1.88E-05 | | | | | 0.96 | | | |
| **SPLA2** | | **Inflamed** | | | 1.90E-04±2.58E-05 | | | 1.87E-04±5.28E-05 | | | | | 0.95 | | | |
| **Non-inflamed** | | | 2.28E-04±3.19E-05 | | | 1.65E-04±3.72E-05 | | | | | 0.21 | | | |
| **rs11805303-CD** | | | | | | | | | | | | | | | | |
|  | | | **CC (n=22)** | | | **CT (n=31)** | | | **TT (n=7)** | | | **F** | | | ***P*** | |
| **HD5** | **Inflamed** | | 2.91E-04±1.10E-04 | | | 9.19E-04±2.44E-04 | | | 8.00E-04±3.69E-04 | | | 1.21 | | | 0.12 | |
| **Non-inflamed** | | 1.08E-04±5.83E-05 | | | 3.64E-04±8.02E-05 | | | 1.75E-04±1.68E-04 | | | 2.88 | | | 0.06 | |
| **HD6** | **Inflamed** | | 2.90E-04±1.06E-04 | | | 3.52E-04±8.74E-05 | | | 6.70E-04±3.09E-04 | | | 1.36 | | | .025 | |
| **Non-inflamed** | | 9.75E-05±2.66E-05 | | | 1.33E-043.20E-05 | | | 8.65E-05±8.43E-05 | | | 0.39 | | | 0.67 | |
| **Lysozyme** | **Inflamed** | | 1.61E-04±2.69E-05 | | | 1.14E-04±1.92E-05 | | | 1.67E-04±3.25E-05 | | | 1.39 | | | 0.25 | |
| **Non-inflamed** | | 1.80E-04±3.23E-05 | | | 1.06E-04±2.06E-05 | | | 1.11E-04±4.14E-05 | | | 2.23 | | | 0.12 | |
| **SPLA2** | **Inflamed** | | 1.23E-04±1.97E-05 | | | 1.33E-04±3.14E-05 | | | 2.08E-04±9.13E-05 | | | 0.77 | | | 0.46 | |
| **Non-inflamed** | | 9.24E-05±1.74E-05 | | | 6.38E-05±1.10E-05 | | | 1.00E-04±2.06E-05 | | | 1.51 | | | 0.23 | |
| **rs12212067-UC** | | | | | | | | | | | | | | | | |
|  | | | | **TT (n=)** | | | **GT (n=)** | | | | **GG (n=)** | | | **F** | | ***P*** |
| **HD5** | **Inflamed** | | | 1.57E-04±3.79E-05 | | | 2.20E-04±7.50E-05 | | | | 6.64E-06±2.05E-06 | | | 1.52 | | 0.23 |
| **Non-inflamed** | | | 2.79E-04±9.84E-05 | | | 2.09E-04±6.83E-05 | | | | 4.17E-06±4.42E-08 | | | 0.62 | | 0.54 |
| **HD6** | **Inflamed** | | | 4.09E-05±9.69E-06 | | | 3.21E-05±1.25E-05 | | | | 3.47E-06±8.19E-07 | | | 1.09 | | 0.35 |
| **Non-inflamed** | | | 4.44E-05±1.16E-05 | | | 5.03E-05±2.40E-05 | | | | 4.32E-06±1.17E-06 | | | 0.84 | | 0.44 |
| **Lysozyme** | **Inflamed** | | | 1.23E-04±1.13E-05 | | | 8.14E-05±2.46E-05 | | | | 1.73E-04±5.32E-05 | | | 2.53 | | 0.09 |
| **Non-inflamed** | | | 1.24E-04±1.27E-05 | | | 1.34E-04±3.02E-05 | | | | 1.97E-04±6.02E-05 | | | 1.57 | | 0.22 |
| **SPLA2** | **Inflamed** | | | 2.06E-04±3.30E-05 | | | 1.90E-04±4.90E-05 | | | | 6.06E-05±1.75E-05 | | | 1.34 | | 0.27 |
| **Non-inflamed** | | | 2.15E-04±2.77E-05 | | | 1.80E-04±5.42E-05 | | | | 1.55E-04±1.21E-04 | | | 0.34 | | 0.71 |
| **rs12212067-CD** | | | | | | | | | | | | | | | | |
|  | | | | | **TT (n=47)** | | | **GT (n=13)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 7.39E-04±1.71E-04 | | | 4.43E-04±2.22E-04 | | | | | 0.40 | | | |
| **Non-inflamed** | | | 2.89E-04±6.18E-05 | | | 9.95E-05±7.95E-05 | | | | | 0.07 | | | |
| **HD6** | | **Inflamed** | | | 3.44E-04±7.46E-05 | | | 4.48E-04±1.78E-04 | | | | | 0.54 | | | |
| **Non-inflamed** | | | 1.23E-04±2.43E-05 | | | 8.28E-05±4.45E-05 | | | | | 0.44 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.46E-04±1.73E-05 | | | 1.08E-04±2.52E-05 | | | | | 0.29 | | | |
| **Non-inflamed** | | | 1.42E-04±2.08E-05 | | | 1.04E-04±2.19E-05 | | | | | 0.22 | | | |
| **SPLA2** | | **Inflamed** | | | 1.43E-04±2.17E-05 | | | 1.23E-04±5.45E-05 | | | | | 0.70 | | | |
| **Non-inflamed** | | | 8.00E-05±1.07E-05 | | | 7.30E-05±1.49E-05 | | | | | 0.75 | | | |
| **rs2542151-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **TT (n=28)** | | | **GT (n=14)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.87E-04±4.37E-05 | | | 8.94E-05±2.89E-05 | | | | | 0.07 | | | |
| **Non-inflamed** | | | 2.89E-04±1.04E-04 | | | 1.42E-04±5.36E-05 | | | | | 0.22 | | | |
| **HD6** | | **Inflamed** | | | 4.00E-05±1.04E-05 | | | 2.70E-05±7.95E-06 | | | | | 0.33 | | | |
| **Non-inflamed** | | | 4.26E-05±1.26E-05 | | | 3.99E-05±1.38E-05 | | | | | 0.90 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.17E-04±1.47E-05 | | | 1.25E-04±1.48E-05 | | | | | 0.72 | | | |
| **Non-inflamed** | | | 1.20E-04±1.29E-05 | | | 1.57E-04±2.51E-05 | | | | | 0.15 | | | |
| **SPLA2** | | **Inflamed** | | | 1.78E-04±2.58E-05 | | | 2.10E-04±5.95E-05 | | | | | 0.63 | | | |
| **Non-inflamed** | | | 2.34E-04±3.12E-05 | | | 1.41E-04±3.41E-05 | | | | | 0.07 | | | |
| **rs2542151-CD** | | | | | | | | | | | | | | | | |
|  | | | | **TT (n=38)** | | | **GT (n=15)** | | | | **GG (n=7)** | | | **F** | | ***P*** |
| **HD5** | **Inflamed** | | | 6.94E-04±2.06E-04 | | | 3.74E-04±1.96E-04 | | | | 1.22E-03±1.19E-04 | | | 1.44 | | 0.25 |
| **Non-inflamed** | | | 2.68E-04±6.90E-05 | | | 1.95E-04±9.14E-05 | | | | 2.51E-04±1.62E-04 | | | 0.17 | | 0.84 |
| **HD6** | **Inflamed** | | | 3.75E-04±8.89E-05 | | | 3.12E-04±1.65E-04 | | | | 4.39E-04±7.03E-05 | | | 0.14 | | 0.87 |
| **Non-inflamed** | | | 1.38E-04±2.96E-05 | | | 6.28E-05±2.77E-05 | | | | 9.52E-05±5.88E-05 | | | 1.19 | | 0.31 |
| **Lysozyme** | **Inflamed** | | | 1.19E-04±1.77E-05 | | | 1.93E-04±2.68E-05 | | | | 1.18E-04±4.98E-05 | | | 2.54 | | 0.09 |
| **Non-inflamed** | | | 1.39E-04±2.05E-05 | | | 1.43E-04±3.67E-05 | | | | 9.06E-05±5.71E-05 | | | 0.43 | | 0.65 |
| **SPLA2** | **Inflamed** | | | 1.68E-04±2.95E-05 | | | 8.16E-05±2.62E-05 | | | | 9.89E-05±2.61E-05 | | | 1.89 | | 0.16 |
| **Non-inflamed** | | | 8.67E-05±9.97E-06 | | | 7.77E-05±2.05E-05 | | | | 3.58E-05±3.10E-05 | | | 1.63 | | 0.21 |
| **rs7234029-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **AA (n=28)** | | | **AG (n=14)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.87E-04±4.37E-05 | | | 8.94E-05±2.89E-05 | | | | | 0.07 | | | |
| **Non-inflamed** | | | 2.89E-04±1.04E-04 | | | 1.42E-04±5.36E-05 | | | | | 0.22 | | | |
| **HD6** | | **Inflamed** | | | 4.00E-05±1.04E-05 | | | 2.70E-05±7.95E-06 | | | | | 0.33 | | | |
| **Non-inflamed** | | | 4.26E-05±1.26E-05 | | | 3.99E-05±1.38E-05 | | | | | 0.90 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.17E-04±1.47E-05 | | | 1.25E-04±1.48E-05 | | | | | 0.72 | | | |
| **Non-inflamed** | | | 1.20E-04±1.29E-05 | | | 1.57E-04±2.51E-05 | | | | | 0.15 | | | |
| **SPLA2** | | **Inflamed** | | | 1.78E-04±2.58E-05 | | | 2.10E-04±5.95E-05 | | | | | 0.63 | | | |
| **Non-inflamed** | | | 2.34E-04±3.12E-05 | | | 1.41E-04±3.41E-05 | | | | | 0.07 | | | |
| **rs7234029-CD** | | | | | | | | | | | | | | | | |
|  | | | | **AA (n=28)** | | | **AG (n=25)** | | | | **GG (n=7)** | | | **F** | | ***P*** |
| **HD5** | **Inflamed** | | | 8.60E-04±2.71E-04 | | | 3.53E-04±1.27E-04 | | | | 1.08E-03±2.04E-04 | | | 2.00 | | 0.14 |
| **Non-inflamed** | | | 3.22E-04±8.47E-05 | | | 1.71E-04±7.15E-05 | | | | 2.28E-04±1.40E-04 | | | 0.94 | | 0.40 |
| **HD6** | **Inflamed** | | | 4.54E-04±1.15E-04 | | | 2.64E-04±1.03E-04 | | | | 3.84E-04±8.90E-05 | | | 0.82 | | 0.45 |
| **Non-inflamed** | | | 1.65E-04±3.35E-05 | | | 5.67E-05±2.35E-05 | | | | 1.17E-04±7.96E-05 | | | 3.07 | | 0.05 |
| **Lysozyme** | **Inflamed** | | | 1.35E-04±2.05E-05 | | | 1.62E-04±2.51E-05 | | | | 6.04E-05±1.02E-05 | | | 2.32 | | 0.11 |
| **Non-inflamed** | | | 1.60E-04±2.50E-05 | | | 1.30E-04±2.81E-05 | | | | 4.43E-05±1.09E-05 | | | 2.29 | | 0.11 |
| **SPLA2** | **Inflamed** | | | 1.71E-04±3.41E-05 | | | 9.44E-05±1.80E-05 | | | | 1.64E-04±8.87E-05 | | | 1.68 | | 0.20 |
| **Non-inflamed** | | | 8.14E-05±1.17E-05 | | | 8.89E-05±1.49E-05 | | | | 3.02E-05±2.55E-05 | | | 2.07 | | 0.14 |
| **rs35261698-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **CC (n=34)** | | | **CG (n=8)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.34E-04±3.36E-05 | | | 2.42E-04±7.85E-05 | | | | | 0.18 | | | |
| **Non-inflamed** | | | 2.28E-04±7.36E-05 | | | 2.88E-04±2.26E-04 | | | | | 0.75 | | | |
| **HD6** | | **Inflamed** | | | 2.86E-05±7.65E-06 | | | 6.56E-05±1.94E-05 | | | | | 0.05 | | | |
| **Non-inflamed** | | | 4.21E-05±1.08E-05 | | | 3.99E-05±2.06E-05 | | | | | 0.93 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.17E-04±1.31E-05 | | | 1.28E-04±1.39E-05 | | | | | 0.58 | | | |
| **Non-inflamed** | | | 1.26E-04±1.42E-05 | | | 1.59E-04±1.82E-05 | | | | | 0.29 | | | |
| **SPLA2** | | **Inflamed** | | | 2.03E-04±2.98E-05 | | | 1.31E-04±4.71E-05 | | | | | 0.28 | | | |
| **Non-inflamed** | | | 2.13E-04±2.70E-05 | | | 1.60E-04±5.87E-05 | | | | | 0.41 | | | |
| **rs35261698-CD** | | | | | | | | | | | | | | | | |
|  | | | | | **CC (n=54)** | | | **CG (n=6)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 7.06E-04±1.56E-04 | | | 3.94E-04±2.45E-04 | | | | | 0.52 | | | |
| **Non-inflamed** | | | 2.26E-04±4.93E-05 | | | 4.50E-04±2.81E-04 | | | | | 0.47 | | | |
| **HD6** | | **Inflamed** | | | 3.71E-04±7.70E-05 | | | 3.29E-04±6.70E-05 | | | | | 0.69 | | | |
| **Non-inflamed** | | | 1.03E-04±2.19E-05 | | | 2.12E-04±7.44E-05 | | | | | 0.13 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.35E-04±1.39E-05 | | | 1.60E-04±8.17E-05 | | | | | 0.78 | | | |
| **Non-inflamed** | | | 1.29E-04±1.69E-05 | | | 1.77E-04±8.09E-05 | | | | | 0.59 | | | |
| **SPLA2** | | **Inflamed** | | | 1.42E-04±2.22E-05 | | | 1.01E-04±4.52E-05 | | | | | 0.55 | | | |
| **Non-inflamed** | | | 7.69E-05±8.99E-06 | | | 9.34E-05±4.14E-05 | | | | | 0.71 | | | |
| **rs2172252-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **AA (n=34)** | | | **AT (n=8)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.34E-04±3.36E-05 | | | 2.42E-04±7.85E-05 | | | | | 0.18 | | | |
| **Non-inflamed** | | | 2.28E-04±7.36E-05 | | | 2.88E-04±2.26E-04 | | | | | 0.75 | | | |
| **HD6** | | **Inflamed** | | | 2.86E-05±7.65E-06 | | | 6.56E-05±1.94E-05 | | | | | 0.05 | | | |
| **Non-inflamed** | | | 4.21E-05±1.08E-05 | | | 3.99E-05±2.06E-05 | | | | | 0.93 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.17E-04±1.31E-05 | | | 1.28E-04±1.39E-05 | | | | | 0.58 | | | |
| **Non-inflamed** | | | 1.26E-04±1.42E-05 | | | 1.59E-04±1.82E-05 | | | | | 0.29 | | | |
| **SPLA2** | | **Inflamed** | | | 2.03E-04±2.98E-05 | | | 1.31E-04±4.71E-05 | | | | | 0.28 | | | |
| **Non-inflamed** | | | 2.13E-04±2.70E-05 | | | 1.60E-04±5.87E-05 | | | | | 0.41 | | | |
| **rs2172252-CD** | | | | | | | | | | | | | | | | |
|  | | | | | **AA (n=54)** | | | **AT (n=6)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 7.06E-04±1.56E-04 | | | 3.94E-04±2.45E-04 | | | | | 0.52 | | | |
| **Non-inflamed** | | | 2.26E-04±4.93E-05 | | | 4.50E-04±2.81E-04 | | | | | 0.47 | | | |
| **HD6** | | **Inflamed** | | | 3.71E-04±7.70E-05 | | | 3.29E-04±6.70E-05 | | | | | 0.69 | | | |
| **Non-inflamed** | | | 1.03E-04±2.19E-05 | | | 2.12E-04±7.44E-05 | | | | | 0.13 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.35E-04±1.39E-05 | | | 1.60E-04±8.17E-05 | | | | | 0.78 | | | |
| **Non-inflamed** | | | 1.29E-04±1.69E-05 | | | 1.77E-04±8.09E-05 | | | | | 0.59 | | | |
| **SPLA2** | | **Inflamed** | | | 1.42E-04±2.22E-05 | | | 1.01E-04±4.52E-05 | | | | | 0.55 | | | |
| **Non-inflamed** | | | 7.69E-05±8.99E-06 | | | 9.34E-05±4.14E-05 | | | | | 0.71 | | | |
| **rs3197999-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **GG (n=34)** | | | **AG (n=8)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.34E-04±3.36E-05 | | | 2.42E-04±7.85E-05 | | | | | 0.18 | | | |
| **Non-inflamed** | | | 2.28E-04±7.36E-05 | | | 2.88E-04±2.26E-04 | | | | | 0.75 | | | |
| **HD6** | | **Inflamed** | | | 2.86E-05±7.65E-06 | | | 6.56E-05±1.94E-05 | | | | | 0.05 | | | |
| **Non-inflamed** | | | 4.21E-05±1.08E-05 | | | 3.99E-05±2.06E-05 | | | | | 0.93 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.17E-04±1.31E-05 | | | 1.28E-04±1.39E-05 | | | | | 0.58 | | | |
| **Non-inflamed** | | | 1.26E-04±1.42E-05 | | | 1.59E-04±1.82E-05 | | | | | 0.29 | | | |
| **SPLA2** | | **Inflamed** | | | 2.03E-04±2.98E-05 | | | 1.31E-04±4.71E-05 | | | | | 0.28 | | | |
| **Non-inflamed** | | | 2.13E-04±2.70E-05 | | | 1.60E-04±5.87E-05 | | | | | 0.41 | | | |
| **rs3197999-CD** | | | | | | | | | | | | | | | | |
|  | | | | | **GG (n=54)** | | | **AG (n=6)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 7.06E-04±1.56E-04 | | | 3.94E-04±2.45E-04 | | | | | 0.52 | | | |
| **Non-inflamed** | | | 2.26E-04±4.93E-05 | | | 4.50E-04±2.81E-04 | | | | | 0.47 | | | |
| **HD6** | | **Inflamed** | | | 3.71E-04±7.70E-05 | | | 3.29E-04±6.70E-05 | | | | | 0.69 | | | |
| **Non-inflamed** | | | 1.03E-04±2.19E-05 | | | 2.12E-04±7.44E-05 | | | | | 0.13 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.35E-04±1.39E-05 | | | 1.60E-04±8.17E-05 | | | | | 0.78 | | | |
| **Non-inflamed** | | | 1.29E-04±1.69E-05 | | | 1.77E-04±8.09E-05 | | | | | 0.59 | | | |
| **SPLA2** | | **Inflamed** | | | 1.42E-04±2.22E-05 | | | 1.01E-04±4.52E-05 | | | | | 0.55 | | | |
| **Non-inflamed** | | | 7.69E-05±8.99E-06 | | | 9.34E-05±4.14E-05 | | | | | 0.71 | | | |
| **rs10885394-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **TT (n=37)** | | | **AT (n=5)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.30E-04±2.82E-05 | | | 3.40E-04±1.47E-04 | | | | | 0.23 | | | |
| **Non-inflamed** | | | 1.72E-04±5.43E-05 | | | 7.41E-04±4.25E-04 | | | | | 0.25 | | | |
| **HD6** | | **Inflamed** | | | 2.88E-05±6.60E-06 | | | 8.59E-05±3.40E-05 | | | | | 0.17 | | | |
| **Non-inflamed** | | | 3.77E-05±9.53E-06 | | | 7.14E-05±3.84E-05 | | | | | 0.44 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.24E-04±1.17E-05 | | | 8.53E-05±2.60E-05 | | | | | 0.25 | | | |
| **Non-inflamed** | | | 1.36E-04±1.31E-05 | | | 1.09E-04±3.34E-05 | | | | | 0.49 | | | |
| **SPLA2** | | **Inflamed** | | | 1.91E-04±2.82E-05 | | | 1.74E-04±6.88E-05 | | | | | 0.84 | | | |
| **Non-inflamed** | | | 1.95E-04±2.55E-05 | | | 2.62E-04±8.41E-05 | | | | | 0.38 | | | |
| **rs10885394-CD** | | | | | | | | | | | | | | | | |
|  | | | | | **TT (n=52)** | | | **AT (n=8)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 6.78E-04±1.62E-04 | | | 6.59E-04±1.96E-04 | | | | | 0.97 | | | |
| **Non-inflamed** | | | 2.46E-04±5.66E-05 | | | 2.62E-04±1.42E-04 | | | | | 0.92 | | | |
| **HD6** | | **Inflamed** | | | 3.72E-04±7.64E-05 | | | 3.32E-04±1.69E-04 | | | | | 0.85 | | | |
| **Non-inflamed** | | | 1.13E-04±2.32E-05 | | | 1.20E-04±5.64E-05 | | | | | 0.92 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.44E-04±1.51E-05 | | | 9.27E-05±4.88E-05 | | | | | 0.23 | | | |
| **Non-inflamed** | | | 1.41E-04±1.80E-05 | | | 8.65E-05±5.13E-05 | | | | | 0.28 | | | |
| **SPLA2** | | **Inflamed** | | | 1.43E-04±2.31E-05 | | | 1.06E-04±3.38E-05 | | | | | 0.54 | | | |
| **Non-inflamed** | | | 8.06E-05±9.66E-06 | | | 6.48E-05±2.50E-05 | | | | | 0.55 | | | |
| **rs10885395-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **CC (n=37)** | | | **CT (n=5)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.30E-04±2.82E-05 | | | 3.40E-04±1.47E-04 | | | | | 0.23 | | | |
| **Non-inflamed** | | | 1.72E-04±5.43E-05 | | | 7.41E-04±4.25E-04 | | | | | 0.25 | | | |
| **HD6** | | **Inflamed** | | | 2.88E-05±6.60E-06 | | | 8.59E-05±3.40E-05 | | | | | 0.17 | | | |
| **Non-inflamed** | | | 3.77E-05±9.53E-06 | | | 7.14E-05±3.84E-05 | | | | | 0.44 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.24E-04±1.17E-05 | | | 8.53E-05±2.60E-05 | | | | | 0.25 | | | |
| **Non-inflamed** | | | 1.36E-04±1.31E-05 | | | 1.09E-04±3.34E-05 | | | | | 0.49 | | | |
| **SPLA2** | | **Inflamed** | | | 1.91E-04±2.82E-05 | | | 1.74E-04±6.88E-05 | | | | | 0.84 | | | |
| **Non-inflamed** | | | 1.95E-04±2.55E-05 | | | 2.62E-04±8.41E-05 | | | | | 0.38 | | | |
| **rs10885395-CD** | | | | | | | | | | | | | | | | |
|  | | | | | **CC (n=52)** | | | **CT (n=8)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 6.78E-04±1.62E-04 | | | 6.59E-04±1.96E-04 | | | | | 0.97 | | | |
| **Non-inflamed** | | | 2.46E-04±5.66E-05 | | | 2.62E-04±1.42E-04 | | | | | 0.92 | | | |
| **HD6** | | **Inflamed** | | | 3.72E-04±7.64E-05 | | | 3.32E-04±1.69E-04 | | | | | 0.85 | | | |
| **Non-inflamed** | | | 1.13E-04±2.32E-05 | | | 1.20E-04±5.64E-05 | | | | | 0.92 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.44E-04±1.51E-05 | | | 9.27E-05±4.88E-05 | | | | | 0.23 | | | |
| **Non-inflamed** | | | 1.41E-04±1.80E-05 | | | 8.65E-05±5.13E-05 | | | | | 0.28 | | | |
| **SPLA2** | | **Inflamed** | | | 1.43E-04±2.31E-05 | | | 1.06E-04±3.38E-05 | | | | | 0.54 | | | |
| **Non-inflamed** | | | 8.06E-05±9.66E-06 | | | 6.48E-05±2.50E-05 | | | | | 0.55 | | | |
| **rs3814570-UC** | | | | | | | | | | | | | | | | |
|  | | | | | **CC (n=37)** | | | **CT (n=5)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 1.30E-04±2.82E-05 | | | 3.40E-04±1.47E-04 | | | | | 0.23 | | | |
| **Non-inflamed** | | | 1.72E-04±5.43E-05 | | | 7.41E-04±4.25E-04 | | | | | 0.25 | | | |
| **HD6** | | **Inflamed** | | | 2.88E-05±6.60E-06 | | | 8.59E-05±3.40E-05 | | | | | 0.17 | | | |
| **Non-inflamed** | | | 3.77E-05±9.53E-06 | | | 7.14E-05±3.84E-05 | | | | | 0.44 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.24E-04±1.17E-05 | | | 8.53E-05±2.60E-05 | | | | | 0.25 | | | |
| **Non-inflamed** | | | 1.36E-04±1.31E-05 | | | 1.09E-04±3.34E-05 | | | | | 0.49 | | | |
| **SPLA2** | | **Inflamed** | | | 1.91E-04±2.82E-05 | | | 1.74E-04±6.88E-05 | | | | | 0.84 | | | |
| **Non-inflamed** | | | 1.95E-04±2.55E-05 | | | 2.62E-04±8.41E-05 | | | | | 0.38 | | | |
| **rs3814570-CD** | | | | | | | | | | | | | | | | |
|  | | | | | **CC (n=52)** | | | **CT (n=8)** | | | | | ***P*** | | | |
| **HD5** | | **Inflamed** | | | 6.78E-04±1.62E-04 | | | 6.59E-04±1.96E-04 | | | | | 0.97 | | | |
| **Non-inflamed** | | | 2.46E-04±5.66E-05 | | | 2.62E-04±1.42E-04 | | | | | 0.92 | | | |
| **HD6** | | **Inflamed** | | | 3.72E-04±7.64E-05 | | | 3.32E-04±1.69E-04 | | | | | 0.85 | | | |
| **Non-inflamed** | | | 1.13E-04±2.32E-05 | | | 1.20E-04±5.64E-05 | | | | | 0.92 | | | |
| **Lysozyme** | | **Inflamed** | | | 1.44E-04±1.51E-05 | | | 9.27E-05±4.88E-05 | | | | | 0.23 | | | |
| **Non-inflamed** | | | 1.41E-04±1.80E-05 | | | 8.65E-05±5.13E-05 | | | | | 0.28 | | | |
| **SPLA2** | | **Inflamed** | | | 1.43E-04±2.31E-05 | | | 1.06E-04±3.38E-05 | | | | | 0.54 | | | |
| **Non-inflamed** | | | 8.06E-05±9.66E-06 | | | 6.48E-05±2.50E-05 | | | | | 0.55 | | | |

**Table S3 Colonic mRNA expression of Tcf-4 was not affected by mutant genotypes at rs3129891 or 77005575 in colonic IBD patients**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **rs3129891-UC** | | | | | | |
|  | | **GG (n=15)** | **AG (n=21)** | **AA (n=6)** | **F** | ***P*** |
| **Tcf-4** | **Inflamed** | 6.28E-05±1.43E-05 | 8.53E-05±2.76E-05 | 8.19E-05±4.31E-06 | 0.24 | 0.78 |
| **Non-inflamed** | 7.42E-05±1.84E-05 | 7.62E-05±2.75E-05 | 8.33E-05±6.83E-06 | 0.02 | 0.98 |
| **rs3129891-CD** | | | | | | |
|  | | **GG (n=33)** | **AG (n=21)** | **AA (n=6)** | **F** | ***P*** |
| **Tcf-4** | **Inflamed** | 5.35E-05±1.20E-05 | 2.27E-05±3.16E-06 | 8.13E-05±3.42E-05 | 3.06 | 0.05 |
| **Non-inflamed** | 1.20E-04±3.55E-05 | 2.11E-05±2.56E-06 | 6.11E-05±2.53E-05 | 2.67 | 0.07 |
| **rs77005575-UC** | | | | | | |
|  | | **TT (n=12)** | **CT (n=21)** | **CC (n=9)** | **F** | ***P*** |
| **Tcf-4** | **Inflamed** | 5.27E-05±1.50E-05 | 1.01E-04±2.72E-05 | 5.19E-05±5.55E-06 | 1.42 | 0.25 |
| **Non-inflamed** | 5.39E-05±1.48E-05 | 1.03E-04±2.80E-05 | 4.53E-05±6.31E-06 | 1.58 | 0.21 |
| **rs77005575-CD** | | | | | | |
|  | | **TT (n=30)** | **CT (n=21)** | **CC (n=9)** | **F** | ***P*** |
| **Tcf-4** | **Inflamed** | 5.85E-05±1.41E-05 | 3.21E-05±6.62E-06 | 3.34E-05±1.28E-05 | 1.42 | 0.24 |
| **Non-inflamed** | 1.01E-04±3.73E-05 | 2.87E-05±3.43E-06 | 1.25E-04±4.97E-05 | 1.77 | 0.17 |