**Supplementary File 4. The effects of cyclamic acid on activity and proliferation of HRPECs.**

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| --- | --- | --- | --- | --- |
|  | **Group** | **Mean±SEM (%)** | **Comparing group *P* value** | |
| Cell activity (24h) | |  | | --- | | Con | | DMSO | | Cur | | C-10 | | C-20 | | C-30 | | C-40 | | |  | | --- | | 1.064 ± 0.034 | | 0.996 ± 0.037 | | 0.740 ± 0.048 | | 1.055 ± 0.042 | | 1.020 ± 0.024 | | 0.479 ± 0.020 | | 0.214 ± 0.004 | | |  | | --- | | Con vs DMSO | | DMSO vs Cur | | C-10 vs Con | | C-20 vs Con | | C-30 vs Con | | C-40 vs Con | | C-10 vs Cur | | C-20 vs Cur | | C-30 vs Cur | | C-40 vs Cur | | |  | | --- | | 0.222 | | 0.006 | | 0.873 | | 0.326 | | 0.000 | | 0.000 | | 0.003 | | 0.002 | | 0.002 | | 0.000 | |
| Cell activity (48h) | |  | | --- | | Con | | DMSO | | Cur | | C-10 | | C-20 | | C-30 | | C-40 | | |  | | --- | | 1.611 ± 0.022 | | 1.534 ± 0.030 | | 0.863 ± 0.031 | | 1.433 ± 0.028 | | 1.143 ± 0.043 | | 0.356 ± 0.023 | | 0.225 ± 0.003 | | |  | | --- | | Con vs DMSO | | DMSO vs Cur | | C-10 vs Con | | C-20 vs Con | | C-30 vs Con | | C-40 vs Con | | C-10 vs Cur | | C-20 vs Cur | | C-30 vs Cur | | C-40 vs Cur | | |  | | --- | | 0.084 | | 0.000 | | 0.003 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.002 | | 0.000 | | 0.000 | |
| Inhibition rate (24h) | |  | | --- | | Cur | | C-10 | | C-20 | | C-30 | | C-40 | | |  | | --- | | 16.335 ± 0.499 | | 11.529 ± 0.247 | | 16.591 ± 0.708 | | 21.329 ± 0.870 | | 28.750 ± 1.249 | | |  | | --- | | C-10 vs Cur | | C-20 vs Cur | | C-30 vs Cur | | C-40 vs Cur | | |  | | --- | | 0.001 | | 0.783 | | 0.008 | | 0.001 | |
| Inhibition rate (48h) | |  | | --- | | Cur | | C-10 | | C-20 | | C-30 | | C-40 | | |  | | --- | | 17.331 ± 0.543 | | 13.468 ± 0.252 | | 21.462 ± 0.485 | | 22.061 ± 1.053 | | 33.937 ± 0.356 | | |  | | --- | | C-10 vs Cur | | C-20 vs Cur | | C-30 vs Cur | | C-40 vs Cur | | |  | | --- | | 0.003 | | 0.005 | | 0.016 | | 0.000 | |

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| --- | --- | --- | --- | --- |
|  | **Group** | **Mean±SEM (%)** | **Comparing group *P* value** | |
| Cell activity (24h) | |  | | --- | | Con | | DMSO | | Cur | | H-40 | | H-80 | | H-120 | | H-160 | | |  | | --- | | 0.819 ± 0.038 | | 0.788 ± 0.021 | | 0.596 ± 0.026 | | 0.813 ± 0.043 | | 0.754 ± 0.025 | | 0.736 ± 0.013 | | 0.735 ± 0.022 | | |  | | --- | | Con vs DMSO | | DMSO vs Cur | | H-40 vs DMSO | | H-80 vs DMSO | | H-120 vs DMSO | | H-160 vs DMSO | | H-40 vs Cur | | H-80 vs Cur | | H-120 vs Cur | | H-160 vs Cur | | |  | | --- | | 0.503 | | 0.001 | | 0.925 | | 0.203 | | 0.085 | | 0.105 | | 0.005 | | 0.004 | | 0.003 | | 0.006 | |
| Cell activity (48h) | |  | | --- | | Con | | DMSO | | Cur | | H-40 | | H-80 | | H-120 | | H-160 | | |  | | --- | | 1.938 ± 0.016 | | 1.930 ± 0.059 | | 1.189 ± 0.122 | | 1.984 ± 0.091 | | 1.935 ± 0.021 | | 1.913 ± 0.100 | | 1.900 ± 0.071 | | |  | | --- | | Con vs DMSO | | DMSO vs Cur | | H-40 vs DMSO | | H-80 vs DMSO | | H-120 vs DMSO | | H-160 vs DMSO | | H-40 vs Cur | | H-80 vs Cur | | H-120 vs Cur | | H-160 vs Cur | | |  | | --- | | 0.900 | | 0.002 | | 0.638 | | 0.907 | | 0.287 | | 0.622 | | 0.002 | | 0.001 | | 0.004 | | 0.002 | |
| Inhibition rate (24h) | |  | | --- | | Cur | | H-40 | | H-80 | | H-120 | | H-160 | | |  | | --- | | 13.002 ± 2.274 | | 8.122 ± 1.286 | | 8.796 ± 1.238 | | 11.714 ± 2.519 | | 13.074 ± 0.865 | | |  | | --- | | H-40 vs Cur | | H-80 vs Cur | | H-120 vs Cur | | H-160 vs Cur | | |  | | --- | | 0.135 | | 0.180 | | 0.724 | | 0.978 | |
| Inhibition rate (48h) | |  | | --- | | Cur | | H-40 | | H-80 | | H-120 | | H-160 | | |  | | --- | | 14.649 ± 0.820 | | 9.319 ± 1.254 | | 11.997 ± 2.306 | | 13.426 ± 1.153 | | 15.513 ± 0.169 | | |  | | --- | | H-40 vs Cur | | H-80 vs Cur | | H-120 vs Cur | | H-160 vs Cur | | |  | | --- | | 0.024 | | 0.210 | | 0.436 | | 0.361 | |

The effects of hyodeoxycholic acid on activity and proliferation of hRPE cells

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Group** | **Mean±SEM (%)** | **Comparing group *P* value** | |
| Cell activity (24h) | |  | | --- | | Con | | DMSO | | Cur | | L-25 | | L-50 | | L-75 | | L-100 | | |  | | --- | | 0.896 ± 0.018 | | 0.840 ± 0.030 | | 0.676 ± 0.012 | | 0.873 ± 0.011 | | 0.857 ± 0.038 | | 0.856 ± 0.028 | | 0.854 ± 0.027 | | |  | | --- | | Con vs DMSO | | DMSO vs Cur | | L-25 vs DMSO | | L-50 vs DMSO | | L-75 vs DMSO | | L-100 vs DMSO | | L-25 vs Cur | | L-50 vs Cur | | L-75 vs Cur | | L-100 vs Cur | | |  | | --- | | 0.542 | | 0.002 | | 0.391 | | 0.276 | | 0.305 | | 0.250 | | 0.000 | | 0.004 | | 0.001 | | 0.001 | |
| Cell activity (48h) | |  | | --- | | Con | | DMSO | | Cur | | L-25 | | L-50 | | L-75 | | L-100 | | |  | | --- | | 1.507 ± 0.017 | | 1.515 ± 0.028 | | 0.972 ± 0.023 | | 1.518 ± 0.016 | | 1.497 ± 0.023 | | 1.490 ± 0.016 | | 1.475 ± 0.070 | | |  | | --- | | Con vs DMSO | | DMSO vs Cur | | L-25 vs DMSO | | L-50 vs DMSO | | L-75 vs DMSO | | L-100 vs DMSO | | L-25 vs Cur | | L-50 vs Cur | | L-75 vs Cur | | L-100 vs Cur | | |  | | --- | | 0.821 | | 0.000 | | 0.644 | | 0.721 | | 0.495 | | 0.666 | | 0.000 | | 0.000 | | 0.000 | | 0.001 | |
| Inhibition rate (24h) | |  | | --- | | Cur | | L-25 | | L-50 | | L-75 | | L-100 | | |  | | --- | | 13.546 ± 0.65 | | 12.026 ± 0.403 | | 13.121 ± 0.604 | | 15.364 ± 0.391 | | 16.289 ± 1.079 | | |  | | --- | | L-25 vs Cur | | L-50 vs Cur | | L-75 vs Cur | | L-100 vs Cur | | |  | | --- | | 0.105 | | 0.646 | | 0.065 | | 0.091 | |
| Inhibition rate (48h) | |  | | --- | | Cur | | L-25 | | L-50 | | L-75 | | L-100 | | |  | | --- | | 13.863 ± 0.485 | | 14.707 ± 2.193 | | 16.255 ± 0.988 | | 18.298 ± 1.362 | | 20.432 ± 1.841 | | |  | | --- | | L-25 vs Cur | | L-50 vs Cur | | L-75 vs Cur | | L-100 vs Cur | | |  | | --- | | 0.726 | | 0.095 | | 0.037 | | 0.026 | |

The effects of L-tryptophanamide on activity and proliferation of HRPECs

The effects of O-Phosphorylethanolamine on activity and proliferation of HRPECs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Group** | **Mean±SEM (%)** | **Comparing group *P* value** | |
| Cell activity (24h) | |  | | --- | | Con | | DMSO | | Cur | | O-5 | | O-10 | | O-15 | | O-20 | | |  | | --- | | 0.958 ± 0.018 | | 1.002 ± 0.033 | | 0.742 ± 0.019 | | 1.051 ± 0.018 | | 1.058 ± 0.035 | | 1.064 ± 0.011 | | 1.109 ± 0.026 | | |  | | --- | | Con vs DMSO | | DMSO vs Cur | | O-5 vs Con | | O-10 vs Con | | O-15 vs Con | | O-20 vs Con | | O-5 vs Cur | | O-10 vs Cur | | O-15 vs Cur | | O-20 vs Cur | | |  | | --- | | 0.286 | | 0.001 | | 0.010 | | 0.045 | | 0.002 | | 0.003 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | |
| Cell activity (48h) | |  |  | | --- | --- | | Con |  | | DMSO |  | | Cur |  | | O-5 |  | | O-10 |  | | O-15 |  | | O-20 |  | | |  | | --- | | 1.713 ± 0.037 | | 1.627 ± 0.074 | | 0.907 ± 0.035 | | 1.940 ± 0.049 | | 1.953 ± 0.053 | | 2.182 ± 0.089 | | 2.216 ± 0.027 | | |  | | --- | | Con vs DMSO | | DMSO vs Cur | | 5 vs Con | | 10 vs Con | | 15 vs Con | | 20 vs Con | | O-5 vs Cur | | O-10 vs Cur | | O-15 vs Cur | | O-20 vs Cur | | |  | | --- | | 0.338 | | 0.000 | | 0.010 | | 0.010 | | 0.003 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | |
| Inhibition rate (24h) | |  | | --- | | Cur | | O-5 | | O-10 | | O-15 | | O-20 | | |  | | --- | | 14.380 ± 0.738 | | -0.361 ± 0.677 | | -2.317 ± 1.410 | | -2.493 ± 1.417 | | -4.005 ± 0.670 | | |  | | --- | | O-5 vs Cur | | O-10 vs Cur | | O-15 vs Cur | | O-20 vs Cur | | |  | | --- | | 0.000 | | 0.001 | | 0.001 | | 0.000 | |
| Inhibition rate (48h) | |  | | --- | | Cur | | O-5 | | O-10 | | O-15 | | O-20 | | |  | | --- | | 15.895 ± 0.055 | | -1.793 ± 0.454 | | -5.817 ± 0.510 | | -7.855 ± 0.350 | | -8.743 ± 0.078 | | |  | | --- | | O-5 vs Cur | | O-10 vs Cur | | O-15 vs Cur | | O-20 vs Cur | | |  | | --- | | 0.000 | | 0.000 | | 0.000 | | 0.000 | |