|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| FSC [AU x 1000] | | Sample size | *p* value | Modulator | Dose | Inhibition of / Function | pHi | | Sample size | *p* value |
| Ctrl | IL-8 | Ctrl | IL-8 |
| 37 ± 5 | 75 ± 8 | 41 - 44 | - | Ctrl | - | - | 7.30 ± 0.07 | 7.70 ± 0.06 | 41 - 43 | - |
| 39 ± 3 | 39 ± 3 | 6 | 0.031 | Amiloride | 200µM | Na+ channels | 7.46 ± 0.08 | 7.37 ± 0.10 | 6 | 0.031 |
| 35 ± 2 | 66 ± 3 | 7 | 0.016 | KBR7943 | 5µM | NCX | 7.35 ± 0.10 | 7.71 ± 0.06 | 7 | n.s. |
| 40 ± 6 | 74 ± 7 | 6 | n.s. | NHE1\* | 5µM | NHE1 | 7.24 ± 0.13 | 7.18 ± 0.13 | 6 | 0.031 |
| 42 ± 5 | 65 ± 13 | 5 | n.s. | Nifedipine | 3µM | L-Type Ca2+ channels | 7.33 ± 0.06 | 7.54 ± 0.16 | 5 | n.s. |
| 36 ± 4 | 46 ± 3 | 6 | 0.031 | NPPB | 100µM | Cl− channels | 7.16 ± 0.07 | 7.23 ± 0.07 | 6 | 0.031 |
| 78 ± 18 | 82 ± 9 | 6 | n.s. | Omeprazole | 10µM | H+ / K+ ATPase | 7.60 ± 0.13 | 7.70 ± 0.03 | 6 | n.s. |
| 43 ± 6 | 68 ± 11 | 5 | n.s. | Ouabain | 100µM | Na+ / K+ ATPase | 7.30 ± 0.11 | 7.53 ± 0.18 | 5 | n.s. |
| 43 ± 5 | 78 ± 7 | 6 | n.s. | S0859 | 30µM | NBC, MCT1 | 7.22 ± 0.10 | 7.58 ± 0.13 | 6 | n.s. |
| 53 ± 6 | 66 ± 14 | 6 | n.s. | UK5099 | 400µM | MPC | 6.64 ± 0.24 | 6.72 ± 0.30 | 6 | 0.031 |
| 49 ± 11 | 71 ± 5 | 6 | n.s. | Zinc | 50µM | Hv1 | 7.33 ± 0.12 | 7.61 ± 0.06 | 6 | 0.031 |
| 40 ± 3 | 56 ± 2 | 7 | 0.016 | 2-Deoxyglucose | 2mM | Glycolysis | 7.02 ± 0.27 | 7.31 ± 0.32 | 7 | 0.047 |
| 47 ± 10 | 71 ± 6 | 6 | n.s. | BAPTA-AM | 10µM | Ca2+ chelator | 7.28 ± 0.09 | 7.56 ± 0.09 | 6 | 0.031 |
| 40 ± 7 | 70 ± 10 | 7 | n.s. | Calphostin C | 50nM | PKC | 7.52 ± 0.17 | 7.88 ± 0.12 | 7 | 0.016 |
| 41 ± 3 | 65 ± 4 | 7 | 0.016 | Copper | 1mM | AQP9 | 7.44 ± 0.08 | 7.60 ± 0.09 | 7 | 0.016 |
| 41 ± 3 | 67 ± 3 | 7 | 0.016 | DMOG | 1mM | HIF-1⍺ inductor | 7.10 ± 0.17 | 7.54 ± 0.19 | 7 | n.s. |
| 58 ± 8 | 65 ± 4 | 7 | 0.016 | DPI | 100µM | NADPH oxidase | 7.34 ± 0.10 | 7.61 ± 0.06 | 7 | 0.016 |
| 56 ± 4 | 62 ± 7 | 6 | 0.031 | SKF-96365 | 50µM | Ca2+entry | 7.06 ± 0.10 | 7.15 ± 0.17 | 5 | 0.031 |
| 41 ± 4 | 55 ± 13 | 6 | n.s. | Suramin | 200µM | P2Y | 7.04 ± 0.24 | 7.04 ± 0.22 | 6 | 0.031 |
| 69 ± 5 | 69 ± 6 | 6 | n.s. | Thapsigargin | 2µM | Reuptake Ca2+ ER | 7.44 ± 0.08 | 7.49 ± 0.13 | 6 | 0.031 |
| 41 ± 4 | 44 ± 4 | 6 | 0.031 | W7 | 40µM | Calmodulin | 7.13 ± 0.07 | 7.20 ± 0.10 | 7 | 0.031 |
| 49 ± 11 | 66 ± 12 | 5 | n.s. | Y-27632 | 10µM | ROCK | 7.40 ± 0.11 | 7.60 ± 0.16 | 5 | n.s. |

Supplemental Table 1: Effect of various ion channel and signaling inhibitors on the Interleukin 8 (IL-8) induced changes in intracellular pH (pHi) and neutrophil cell size after 5 min. Neutrophils were treated with the indicated modulators or corresponding control condition prior to IL-8 stimulation. The values after stimulation with IL-8 of FSC or intracellular pH were compared between neutrophils pretreated with inhibitors or appropriate controls (n = 5–7). Ctrl (Leukos) refers to a faster isolation preparation of neutrophils resulting in neutrophils stimulated in the presence of other leukocytes. A *p*-value < 0.05 (Wilcoxon Signed Rank Test) indicates an inhibitory effect of the modulator on the cell shape change and intracellular alkalization mediated by IL-8 compared with the maximal effect elicited by IL-8 in the absence of a modulator. NHE1\* = (4-cyanobenzo[b]thiophene-2-carbonyl)guanidine, methanesulfonate.