Supplementary data

Some fluorescent HOCl probes developed since 2016 and their characteristics are presented in Table S1 (see articles [1–17]).

Table S1.Comparison of fluorescent probes for HOCl[1]

Probe	Type of fluorescent signal	λ (nm)	LOD (nM)	Plato time (s)[2]	References
CMOS	turn-off	405, F480↓	21	5	[1]
HKOCl-3	turn-on	490, F527↑	0.33	60	[2]
BCO	ratiometric	372, F460↑/430	154	n/a	[3]
BETC	turn-on	350, F440↑	32	n/a	[3]
FHZ	turn-on	490, F520↑	n/a	60	[4]
NDS	turn-on	420, F525↑	105	16	[5]
RT-1	turn-on	550, F587↑	2.18	180	[6]
BR-O	turn-on	610, F670↑	19	420	[7]
HKOCl-4	turn-on	530, F577↑	9	30	[8]
BRT	ratiometric	525, F580↑/540↓	38	15	[9]
BC-3	turn-on	620, F669↑	11	30	[10]
HDI-HClO	turn-on	440, F520↑	8.3	8	[11]
HQMN	ratiometric	370, F468↑/572↓	787	100	[12]
Dcp-EPtz	turn-on	475, F618↑	39	300	[13]
RO610	turn-on	535, F577↑	29	30	[14]
CR-Ly	ratiometric	420, F582↑/479↓	12	50	[15]
FD-301	turn-on	620, F686↑	44	10	[16]
FN-1, FN-2	turn-on	490, F529↑	210, 230	300, 120	[17]
CB	turn-on	430, F590↑	32	30	Current work

[1]Thescopeofcomparisonincludesonlyworkspublishedbetween2016 and2021thatinvolved cell or tissue imaging of HOCl.
[2] Plateau time means the time to reach a plateau in the change in fluorescence intensity after HOCl addition.

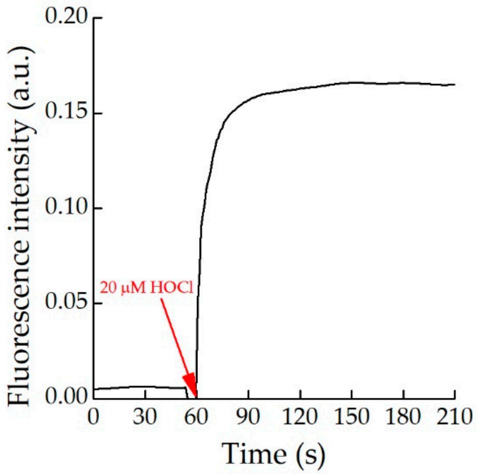
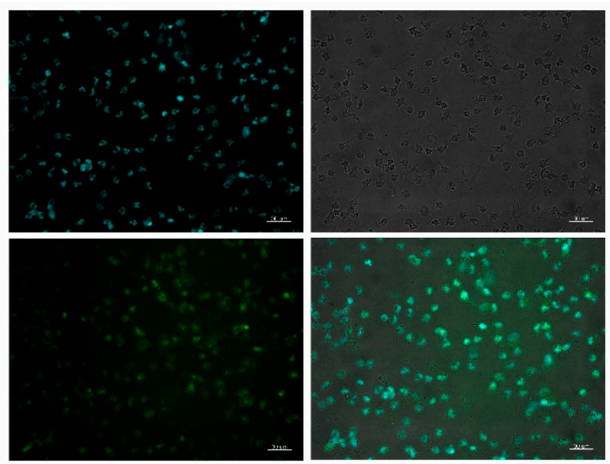
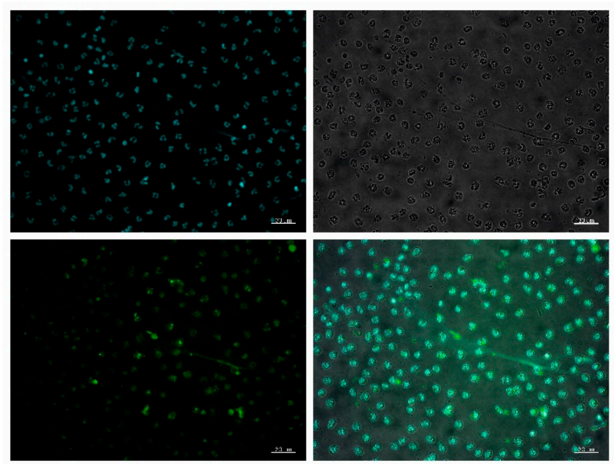


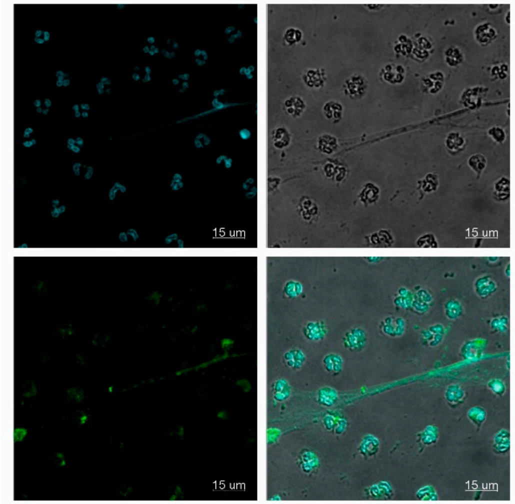
Figure S1. The time course of fluorescence intensity of CB (20 μM) at 590 nm (λex=430 nm) after treatment with 1 eqv. of HOCl (time range 0–210 s). PBS (pH7.4), T=25°C.



(**a**)



(**b**)



(**c**)

Figure S2. Visualization of neutrophil extracellular traps using APF and CB. (**a**)Images obtained by confocal microscopy for preparations of neutrophils incubated with 5 μM APF in the presence of 50 nM PMA; (**b**), (**c**)with 20 μM CB and in the presence of 50 nM PMA. 1 – DAPI (blue), 2 – differential interference contrast, 3 – fluorescence of APF or CB(green) obtained upon excitation withmercury-vapor lamp at 465-505 nm, emission at 515-750 nm (**a**), (**b**) or laser at 488 nm emission at 515-750 nm (**c**), 4 – merge of1,2 and 3.

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