

SUPPLEMENTARY DATA

Table I – Revertants induced by Nifurtimox (NFX), Benznidazole (BNZ), and Metronidazole (MTZ) in different *Salmonella* strains, with (+) or without (-) S9 mix. Mean (\pm SD) of three plates. Compound molarities were calculated taking into account the top-agar volume (2.5ml).

	Dose (μ g/plate)	Dose (μ M)	TA100 -S9	TA100 +S9	TA100NR -S9	TA98 -S9	TA98 +S9	TA98NR -S9
NFX	0	0	170 \pm 25	176 \pm 17	179 \pm 5	15 \pm 1	16 \pm 3	16 \pm 5
	5	7.0	618 \pm 10*	647 \pm 21*	224 \pm 8	30 \pm 4	32 \pm 4	16 \pm 2
	10	13.9	1100 \pm 24*	1145 \pm 13*	234 \pm 12	39 \pm 8	40 \pm 5	17 \pm 4
	20	27.8	1771 \pm 27*	1754 \pm 60*	302 \pm 10*	70 \pm 6*	52 \pm 4*	20 \pm 4
	40	55.7	2023 \pm 28*	1982 \pm 60*	366 \pm 11*	126 \pm 10*	105 \pm 4*	25 \pm 5
	80	111.4	1048 \pm 62*	1443 \pm 107*	608 \pm 33*	203 \pm 9*	181 \pm 8*	28 \pm 7
BNZ	0	0	171 \pm 10	180 \pm 15	183 \pm 7	17 \pm 4	21 \pm 2	22 \pm 2
	5	7.7	498 \pm 25*	406 \pm 13*	247 \pm 19	10 \pm 2	20 \pm 2	24 \pm 3
	10	15.4	943 \pm 27*	811 \pm 55*	249 \pm 6	16 \pm 4	18 \pm 2	28 \pm 2
	20	30.7	1801 \pm 67*	1445 \pm 85*	233 \pm 6	14 \pm 6	22 \pm 8	23 \pm 3
	40	61.5	3344 \pm 104*	3117 \pm 169*	318 \pm 9*	15 \pm 1	24 \pm 5	24 \pm 5
	80	123.0	5287 \pm 81*	4901 \pm 166*	343 \pm 26*	14 \pm 2	23 \pm 4	27 \pm 3
	125	192.1	nd	nd	nd	26 \pm 3	34 \pm 2	30 \pm 3
	250	384.2	nd	nd	nd	39 \pm 3	43 \pm 9	46 \pm 9
500	768.5	nd	nd	nd	45 \pm 5	44 \pm 6	54 \pm 11	
MTZ	0	0	196 \pm 20	180 \pm 18	205 \pm 3	16 \pm 3	21 \pm 5	21 \pm 7
	5	11.7	265 \pm 11	221 \pm 13	217 \pm 8	17 \pm 5	24 \pm 3	17 \pm 4
	10	23.4	258 \pm 24	273 \pm 24	190 \pm 23	20 \pm 3	19 \pm 5	20 \pm 4
	20	46.7	326 \pm 11	342 \pm 18*	216 \pm 12	18 \pm 4	21 \pm 5	19 \pm 1
	40	93.5	359 \pm 18*	418 \pm 20*	217 \pm 24	15 \pm 4	25 \pm 3	18 \pm 2
	80	187.0	551 \pm 56*	576 \pm 14*	236 \pm 12	18 \pm 2	30 \pm 6	17 \pm 2
	125	292.1	1053 \pm 19*	1185 \pm 37*	256 \pm 31	24 \pm 1	34 \pm 1	22 \pm 5
	250	584.3	1725 \pm 84*	1952 \pm 40*	331 \pm 46	32 \pm 1*	45 \pm 4	23 \pm 4
500	1168.6	2666 \pm 168*	2777 \pm 91*	376 \pm 32*	39 \pm 2*	64 \pm 4*	27 \pm 5	

* p<0.05 Dunnett's C

nd: not determined

Table II - Mean frequency of Micronuclei (MN) in binucleated cells (BN) and Nuclear Division Index (NDI) in human lymphocytes treated for 24 or 72 hours with BNZ, and MTZ

	Dose (μM)	NDI	NDI (%)	MN ($\times 10^{-3}$ BN)
BNZ (24h)	0	2.10 \pm 0.10	100	3.0 \pm 1.0
	1.9	1.99 \pm 0.10	95 \pm 5	3.0 \pm 0.5
	3.8	1.97 \pm 0.11	94 \pm 5	4.0 \pm 0.5
	7.7	1.97 \pm 0.07	94 \pm 3	3.5 \pm 1.0
	15.4	2.00 \pm 0.06	95 \pm 3	2.5 \pm 0.5
	30.7	2.04 \pm 0.05	97 \pm 2	4.5 \pm 1.0
	61.5	1.99 \pm 0.07	95 \pm 3	3.5 \pm 0.5
	96.1	2.01 \pm 0.03	96 \pm 1	3.0 \pm 0.5
	192.1	2.07 \pm 0.07	99 \pm 3	5.0 \pm 1.0
	384.2	2.04 \pm 0.10	97 \pm 5	3.5 \pm 0.5
MTZ (24h)	0	2.19 \pm 0.14	100	3.5 \pm 1.5
	2.9	2.04 \pm 0.12	104 \pm 6	2.5 \pm 0.5
	5.9	1.97 \pm 0.07	100 \pm 4	3.0 \pm 1.0
	11.7	1.97 \pm 0.05	100 \pm 3	2.0 \pm 0.5
	23.4	2.00 \pm 0.06	102 \pm 3	2.5 \pm 0.5
	46.8	2.01 \pm 0.10	102 \pm 5	3.0 \pm 0.5
	93.6	1.99 \pm 0.04	101 \pm 2	4.0 \pm 0.5
	146.2	1.97 \pm 0.10	100 \pm 5	3.0 \pm 1.0
	292.4	2.01 \pm 0.03	102 \pm 2	4.0 \pm 1.0
	584.8	1.94 \pm 0.06	98 \pm 3	3.0 \pm 1.0
MTZ (72h)	0	1.74 \pm 0.19	100	4.0 \pm 1.0
	2.9	1.74 \pm 0.11	100 \pm 6	3.5 \pm 0.5
	5.9	1.75 \pm 0.17	101 \pm 10	5.0 \pm 1.0
	11.7	1.74 \pm 0.10	100 \pm 6	4.5 \pm 1.0
	23.4	1.70 \pm 0.06	98 \pm 4	4.0 \pm 1.5
	46.8	1.81 \pm 0.09	104 \pm 5	4.5 \pm 0.5
	93.6	1.73 \pm 0.08	100 \pm 5	3.0 \pm 0.5
	146.2	1.84 \pm 0.11	106 \pm 6	4.0 \pm 1.0
	292.4	1.76 \pm 0.07	102 \pm 4	4.0 \pm 1.5
	584.8	1.74 \pm 0.12	100 \pm 7	5.0 \pm 1.0
Positive controls - ethyl methane sulfonate (120 $\mu\text{g}/\text{ml}$): 15.0 \pm 2.8; bleomycin (6 $\mu\text{g}/\text{ml}$): 26.0 \pm 4.0; demecolcine (0.3 $\mu\text{g}/\text{ml}$): 65.0 \pm 3.3				

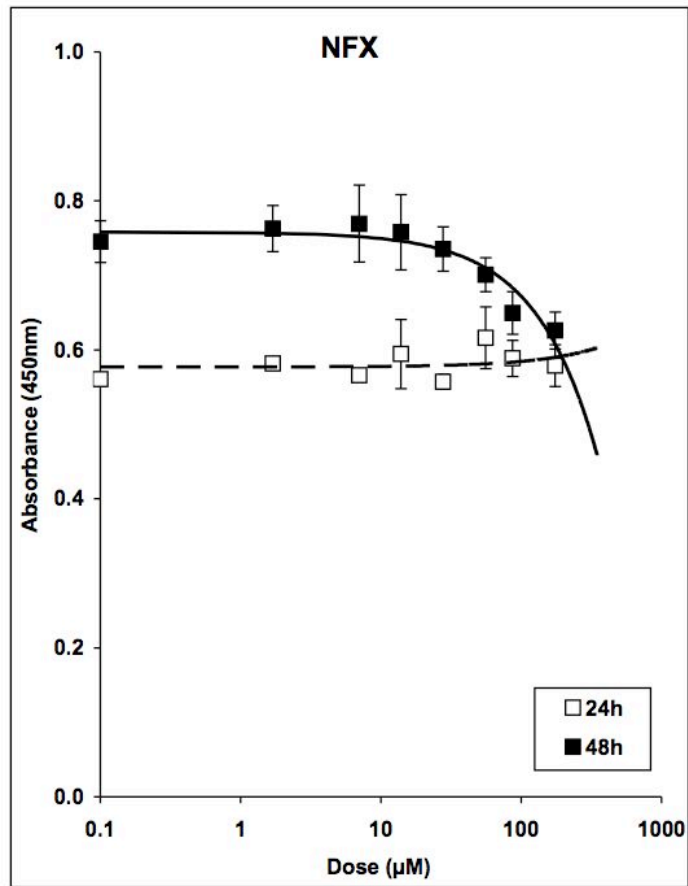
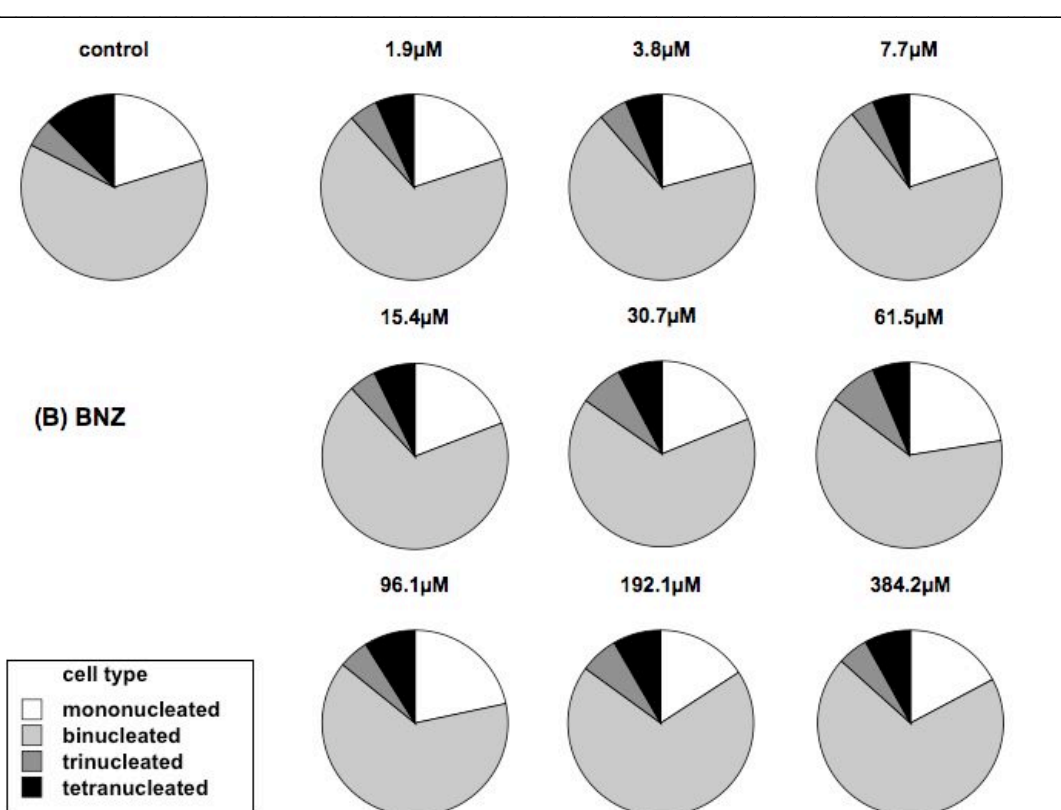
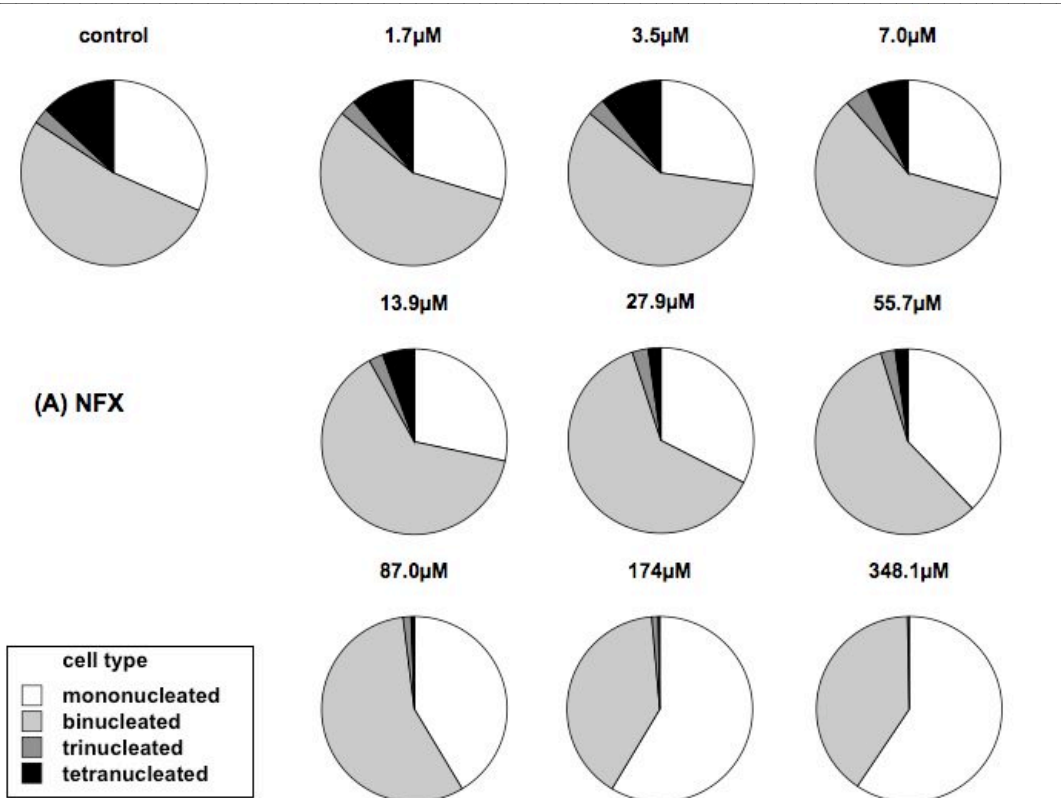


Figure 1 – Cytotoxic effects induced in immortalized NFX 24h- or 48h-treated lymphocytes when detected by MTS assay.



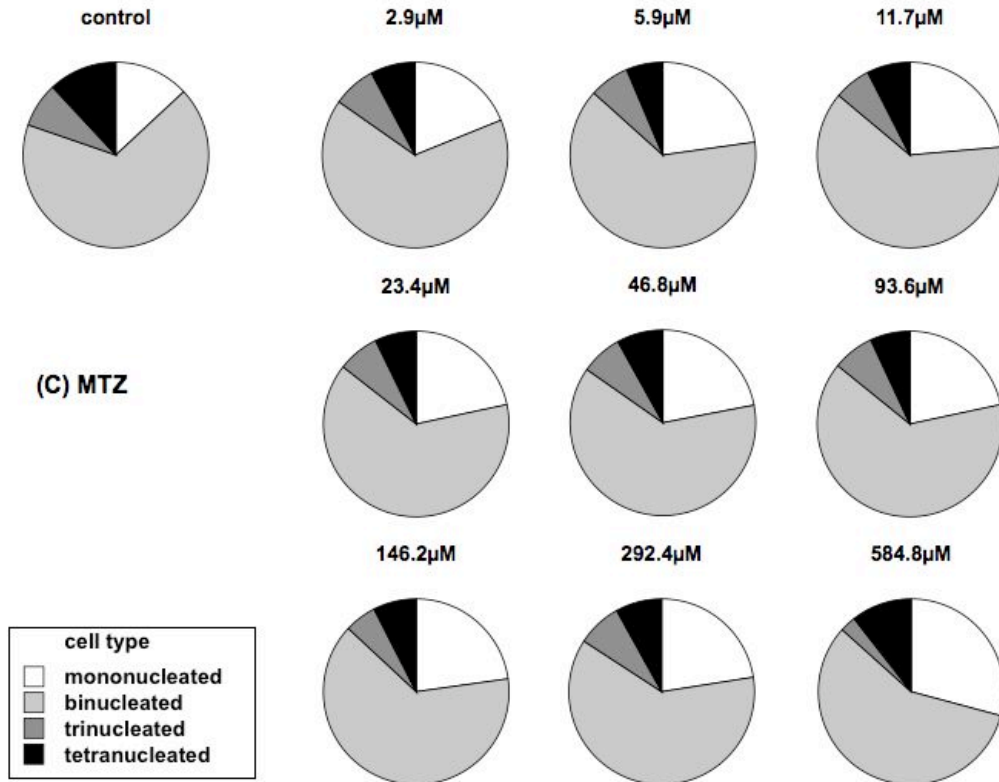


Figure II – MN assay. Percentage of mono-, bi-, tri-, tetranucleated cells within 24h-treated human lymphocytes with NFX (A), BNZ (B), and MTZ (C).