

Supplementary Data - Table 2: *In vitro* mammalian cell micronucleus test

	Dose ($\mu\text{g}/\text{mL}$)	Population doubling % decrease	Micronucleated cells %. frequency	Micronucleated cell ratio treated/control
First	0		4	
experiment	37.5	none	1	0.3
Short	75	none	3	0.7
treatment	150	13	3	0.7
3hT + 24hR	300	#		
Without S9	400	-		
mix	600	-		
	MMC	80	148	42.3***
	COL	#	21	6.0***
Second	0		3	
experiment	37.5	0		
Short	75	none		
treatment	150	none		
3hT + 24hR	200	22	4	1.2
Without S9	250	32	3	1.0
mix	300	45	6	1.8
	400	#		
	MMC	85	174	57.8***
	COL	#	65	21.7***
Third	0		4	
experiment	37.5	none		
Short	75	3	3	0.7
treatment	150	33	3	0.7
3hT + 24hR	200	39	5	1.3
Without S9	250	63†		
mix	300	84†		
	350	99†		
	400	#		
	MMC	#	132	37.6***
	COL	#	37	10.4***
Long	0		4	
treatment	200	15	5	1.3
24hT + 0hR	400	40	3	0.6
Without S9	600	45	5	1.1
mix	800	67†		
	1000	93†		
	1500	#		
	2000	#		
	MMC	#	100	25.0***
	COL	#	13	3.3**
Short	0		1	
treatment	50	none		
3hT + 24hR	100	6	4	3.5
With S9 mix	200	7	3	2.5
	300	38	3	2.5
	400	#		
	600	#		
	CPA	39	67	66.5***

Cell concentration used for treatment: 30×10^4 cells/mL (L5178Y TK^{-/-} cells)

Vehicle: water for injections, Test item: Protealg

Positive controls: MMC: mitomycin C ($1 \mu\text{g}/\text{mL}$), COL: cochicine ($0.5 \mu\text{g}/\text{mL}$) and CPA: cyclophosphamide ($6 \mu\text{g}/\text{mL}$)

#: cell concentration at end of treatment was lower than at the beginning

-: not evaluated as the presence of particles prevented cell counting

***: $p < 0.001$, **: $p < 0.01$ (2x2 contingency table), †:

too cytotoxic, T: treatment, R: recovery