

Figure 1. Growth inhibition of CHL cells treated with 2-ethylhexyl vinyl ether [Short-term treatment]

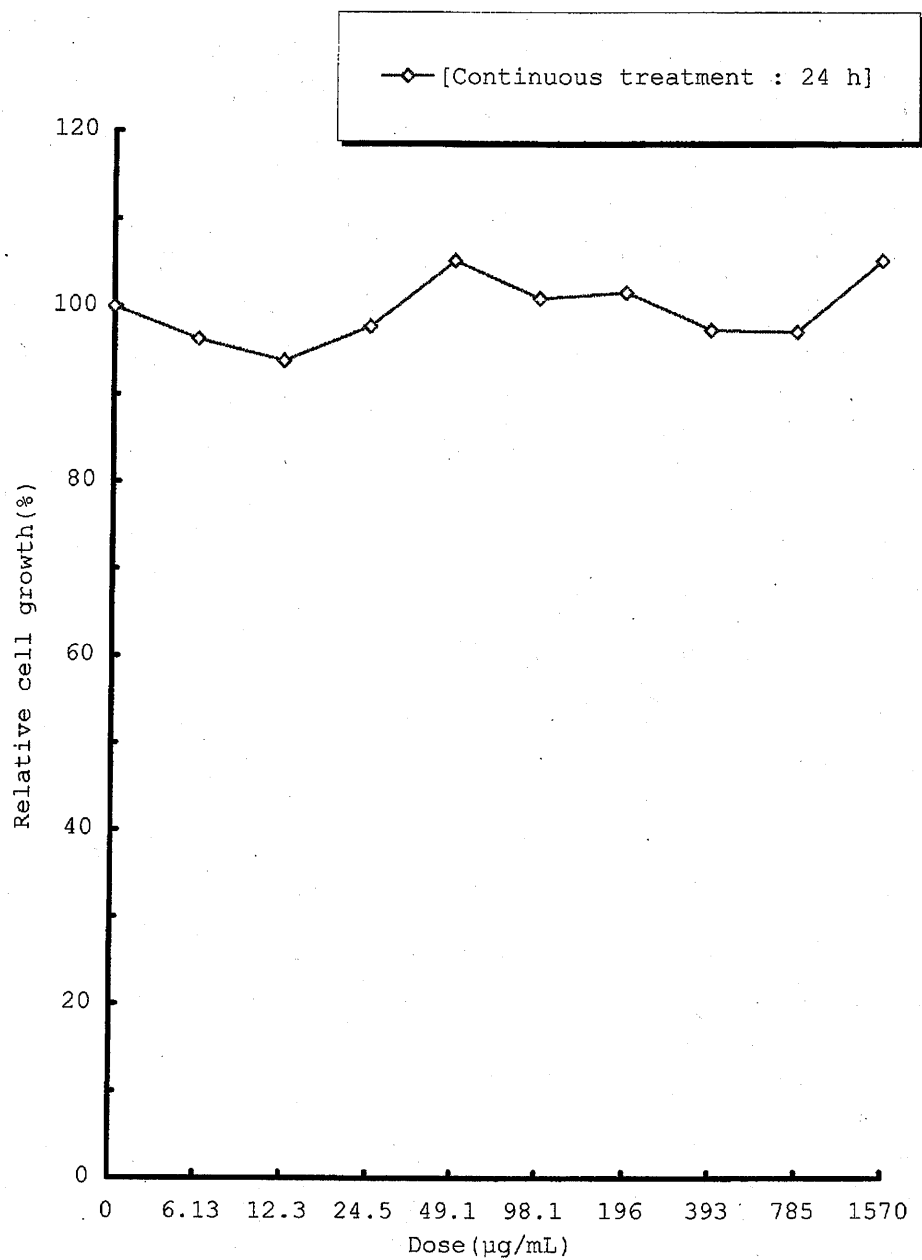


Figure 2. Growth inhibition of CHL cells treated with 2-ethylhexyl vinyl ether [Continuous treatment]

Table 1.

Results of growth inhibition test of 2-ethylhexyl vinyl ether
[Short-term treatment]

Exp. No. 9047 (115-198)

Compound	[Short-term treatment : -S9]		[Short-term treatment : +S9]		
	Dose (µg/mL)	Relative cell growth (%) [Mean]	Compound	Dose (µg/mL)	Relative cell growth (%) [Mean]
2-ethylhexyl vinyl ether	0 a)	100.0 [100.0]	2-ethylhexyl vinyl ether	0 a)	100.0 [100.0]
	6.13	94.3 [94.7]		6.13	99.8 [99.8]
	12.3	93.5 [96.4]		12.3	106.2 [105.4]
	24.5	97.9 [96.7]		24.5	103.4 [102.6]
	49.1	108.2 [108.9]		49.1	104.1 [106.6]
	98.1	90.4 [92.0]		98.1	94.6 [94.3]
	196	90.6 [88.2]		196	93.9 [93.6]
	393	93.6 [91.2]		393	99.0 [94.8]
	785	84.0 [84.6]		785	96.6 [95.7]
	1570	87.4 [88.5]		1570	99.5 [97.1]
		89.5			94.6

50% Growth inhibition dose was as follows:
 [short-term treatment : -S9] ——— Not inhibited
 [short-term treatment : +S9] ——— Not inhibited
 a): Negative control (Dimethyl sulfoxide, 10 µL/mL)

Table 2. Results of growth inhibition test of 2-ethylhexyl vinyl ether
[Continuous treatment]

Exp. No. 9047 (115-198)

[Continuous treatment : 24 h]		
Compound	Dose (µg/mL)	Relative cell growth (%) [Mean]
2-ethylhexyl vinyl ether	0 a)	100.0 [100.0] 100.0
	6.13	94.7 [96.3] 97.9
	12.3	94.0 [93.8] 93.5
	24.5	98.5 [97.9] 97.2
	49.1	99.6 [105.3] 110.9
	98.1	99.3 [101.0] 102.7
	196	101.8 [101.7] 101.5
	393	98.2 [97.4] 96.6
	785	103.8 [97.2] 90.6
	1570	106.5 [105.3] 104.0

50% Growth inhibition dose was as follows:
[Continuous treatment : 24 h] ----- Not inhibited
a): Negative control (Dimethyl sulfoxide:10 µL/mL)

Table 3. Chromosome aberration test in CHL cells treated with 2-ethylhexyl vinyl ether Exp. No. 9047 (115-198)
 [Short-term treatment : -S9]

Compound	Dose (µg/mL)	Time of exposure (h)	Relative cell growth (%)	Number of cells analyzed	Number of cells with structural aberrations				Number of cells analyzed for polyploid	Number of polyploid cells (%)			
					gap	ctb	cte	csb			cse	oth	Number of cells with aberrations -gap(%)
2-ethylhexyl vinyl ether	0 a)	6	100.0	200	1	1	0	0	0	0	1 (0.5)	200	0 (0.0)
	393	6	89.9	200	3	1	3	0	0	0	4 (2.0)	200	0 (0.0)
	785	6	95.9	200	1	0	0	0	0	0	0 (0.0)	200	1 (0.5)
	1570	6	85.7	200	5	0	0	0	0	0	0 (0.0)	200	1 (0.5)
MMC b)	0.1	6	78.6	200	16	33	67	0	0	0	84 (42.0) *	200	1 (0.5)

Abbreviation: ctb; chromatid break, cte: chromatid exchange, csb: chromosome break, cse: chromosome exchange, oth: others
 -gap: total number of cells with aberrations except gap
 * : Significant difference from control (Fisher's exact test): p<0.025
 a): Negative control (Dimethyl sulfoxide, 10 µL/mL)
 b): Positive control (Mitomycin C)

Table 4. Chromosome aberration test in CHL cells treated with 2-ethylhexyl vinyl ether Exp. No. 9047 (115-198)
 [Short-term treatment : +S9]

Compound	Dose (µg/mL)	Time of exposure (h)	Relative cell growth (%)	Number of cells analyzed	Number of cells with structural aberrations				Number of cells analyzed for polyploid	Number of polyploid cells (%)			
					gap	ctb	cte	csb			cse	oth	aberrations -gap(%)
2-ethylhexyl vinyl ether	0 a)	6	100.0	200	0	0	0	0	0	0	0 (0.0)	200	1 (0.5)
	393	6	87.0	200	0	0	1	0	0	0	1 (0.5)	200	1 (0.5)
	785	6	89.4	200	0	0	1	0	0	0	1 (0.5)	200	2 (1.0)
	1570	6	90.0	200	1	1	1	0	0	0	2 (1.0)	200	1 (0.5)
CP b)	12.5	6	89.0	200	5	8	43	0	0	0	48 (24.0) *	200	1 (0.5)

Abbreviation: ctb; chromatid break, cte: chromatid exchange, csb: chromosome break, cse: chromosome exchange, oth: others
 -gap: total number of cells with aberrations except gap
 * : Significant difference from control (Fisher's exact test): $p \leq 0.025$
 a): Negative control (Dimethyl sulfoxide, 10 µL/mL)
 b): Positive control (Cyclophosphamide)

Table 5. Chromosome aberration test in CHL cells treated with 2-ethylhexyl vinyl ether Exp. No. 9047 (115-198)
 [Continuous treatment : 24 h]

Compound	Dose (µg/mL)	Time of exposure (h)	Relative cell growth (%)	Number of cells analyzed	Number of cells with structural aberrations				Number of cells with aberrations -gap(%)	Number of cells analyzed for polyploid	Number of polyploid cells (%)			
					gap	ctb	cte	csb				cse	oth	
2-ethylhexyl vinyl ether	0 a)	24	100.0	200	0	2	1	0	0	3	(1.5)	200	2	(1.0)
	393	24	93.8	200	0	0	0	0	0	0	(0.0)	200	1	(0.5)
	785	24	95.8	200	1	0	0	0	0	0	(0.0)	200	0	(0.0)
	1570	24	91.6	200	2	0	0	0	0	0	(0.0)	200	0	(0.0)
MMC b)	0.05	24	86.3	200	9	12	38	0	2	0	(24.5)	* 200	0	(0.0)

Abbreviation: ctb; chromatid break, cte: chromatid exchange, csb: chromosome break, cse: chromosome exchange, oth: others
 -gap: total number of cells with aberrations except gap
 * :Significant difference from control (Fisher's exact test):p≤0.025
 a): Negative control(Dimethyl sulfoxide, 10 µL/mL)
 b): Positive control(Mitomycin C)

Compound	Dose (µg/mL)	Time of exposure (h)	Relative cell growth (%)	Number of cells analyzed	Number of cells with structural aberrations						Total (-gap) (%)	Number of cells analyzed for polyploid (%)	Polyploid cells (%)	
					gap	ctb	cte	csb	cse	oth				Only gap (%)
2-ethylhexyl vinyl ether	0 a)	6	100.0	100	1	0	0	0	0	0	1.0	0.0	100	0.0
		6	100.0	100	0	1	0	0	0	0	0.0	1.0	100	0.0
	393	6	94.3	100	1	0	2	0	0	0	1.0	2.0	100	0.0
		6	85.4	100	2	1	1	0	0	0	1.0	2.0	100	0.0
	785	6	93.2	100	1	0	0	0	0	0	1.0	0.0	100	1.0
		6	98.6	100	0	0	0	0	0	0	0.0	0.0	100	0.0
	1570	6	84.3	100	3	0	0	0	0	0	3.0	0.0	100	1.0
		6	87.0	100	2	0	0	0	0	0	2.0	0.0	100	0.0
MMC b)	0.1	6	75.6	100	7	17	30	0	0	0	3.0	39.0	100	1.0
		6	81.6	100	9	16	37	0	0	0	2.0	45.0	100	0.0

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 -gap: total number of cells with aberrations except gap
 a): Negative control (Dimethyl sulfoxide, 10 µL/mL)
 b): Positive control (Mitomycin C)

Compound	Dose (µg/mL)	Time of exposure (h)	Relative cell growth (%)	Number of cells analyzed	Number of cells with structural aberrations						Total (-gap) (%)	Number of cells analyzed for polyploid (%)
					gap	ctb	cte	csb	cse	oth		
2-ethylhexyl vinyl ether	0 a)	6	100.0	100	0	0	0	0	0	0	0.0	100
		6	100.0	100	0	0	0	0	0	0	0.0	100
	393	6	86.4	100	0	0	0	0	0	0	0.0	100
		6	87.6	100	0	0	1	0	0	0	1.0	100
	785	6	86.9	100	0	0	1	0	0	0	1.0	100
		6	91.8	100	0	0	0	0	0	0	0.0	100
	1570	6	93.8	100	1	0	1	0	0	0	1.0	100
		6	86.2	100	0	1	0	0	0	0	1.0	100
CP b)	12.5	6	86.1	100	4	4	23	0	0	0	27.0	100
		6	91.8	100	1	4	20	0	0	0	21.0	100

Abbreviation: ctb; chromatid break, cte: chromatid exchange, csb: chromosome break, cse: chromosome exchange, oth: others
 -gap: total number of cells with aberrations except gap
 a): Negative control (Dimethyl sulfoxide, 10 µL/mL)
 b): Positive control (Cyclophosphamide)

Compound	Dose (µg/mL)	Time of exposure (h)	Relative cell growth (%)	Number of cells analyzed	Number of cells with structural aberrations							Total (-gap) (%)	Number of cells analyzed for polyploid (%)		
					gap	ctb	cte	csb	cse	oth	Only gap (%)				
2-ethylhexyl vinyl ether	0 a)	24	100.0	100	0	1	1	0	0	0	0	0.0	2.0	100	2.0
		24	100.0	100	0	1	0	0	0	0	0	0.0	1.0	100	0.0
	393	24	93.8	100	0	0	0	0	0	0	0	0.0	0.0	100	1.0
		24	93.8	100	0	0	0	0	0	0	0	0.0	0.0	100	0.0
	785	24	97.6	100	0	0	0	0	0	0	0	0.0	0.0	100	0.0
		24	94.0	100	1	0	0	0	0	0	0	1.0	0.0	100	0.0
	1570	24	91.3	100	1	0	0	0	0	0	0	1.0	0.0	100	0.0
		24	91.9	100	1	0	0	0	0	0	0	1.0	0.0	100	0.0
MMC b)	0.05	24	83.9	100	6	8	20	0	1	0	0	2.0	27.0	100	0.0
		24	88.6	100	3	4	18	0	1	0	0	3.0	22.0	100	0.0

Abbreviation: ctb; chromatid break, cte: chromatid exchange, csb: chromosome break, cse: chromosome exchange, oth: others
 -gap: total number of cells with aberrations except gap
 a): Negative control (Dimethyl sulfoxide, 10 µL/mL)
 b): Positive control (Mitomycin C)