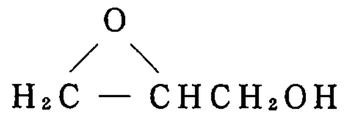
2,3-Epoxy-1-propanol (2,3-エポキシプロパノール)

Chemical Name: 2,3-Epoxy-1-propanol
Synonym: Oxiranemethanol
Glycidol
Molecular weight: 74.1
Boiling point: 162-154℃
65-66℃(2.5mmHg)
41℃(1mmHg)
Flashing point: 81℃
Chemical Structure



CAS No : 556-52-5
MITI No : (2)-2389
Source of Substance: Wako Pure Chem. Ind. Ltd.
Lot. No: LAM4527
Purity: %
Vehicle: DMSO

Judgement for
Chromosomal Aberration in CHL: Positive

IARC Evaluation: not yet cited

Experimental Data

	Treated Time (Hr)	Concentration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge	Cell with Structural Chromosome Aberration (%) Gap	CTB	CTE	CSB	CSE	Total -G	Total +G	Judge
DMSO	24		200	0.5	−	0	0	0.5	0	0	0.5.	0.5	−
	48		200	0.5	−	0	0	0.5	0	0	0.5	0.5	−
Test Chemical													
	24	0.02	200	0.5	−	0.5	0	2.5	0	0	2.5	3.0	−
		0.04	200	0	−	2.5	1.5	6.5	0	0	8.0	10.5	+
		0.08	200	0.5	−	4.5	6.5	25.5	0	0	31.0	34.0	+
		0.12	200	1.5	−	29.0	51.5	84.5	0	0	91.0	91.0	+
		0.16				No observation for metaphase							
	48	0.02	200	0	−	1.5	0	1.5	0	0	1.5	3.0	−
		0.04	200	0	−	2.5	0.5	6.0	0	0	6.5	9.0	±
		0.08	200	0.5	−	5.5	7.5	30.0	0	0	34.5	36.5	+
		0.12	200	0	−	25.5	44.5	70.0	0	0	80.0	80.0	+
		0.16				No observation for metaphase							
Positive Control													
(MMC)	24	0.00008	200	0	−	3.0	7.5	24.5	0	0	29.5	31.0	+
	48	0.00008	200	1.0	−	2.0	4.5	28.5	0	0.5	31.0	31.5	+

Experimental Data

	S 9 with or without	Concentration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge	Cell with Structural Chromosome Aberration (%) Gap	CTB	CTE	CSB	CSE	Total -G	Total +G	Judge
DMSO	−		200	0	−	0.5	0	0	0	0	0	0.5	−
	+		200	0	−	0.5	0	0.5	0	0	0.5	1.0	−
Test Chemical													
	−	0.075	200	0.5	−	1.0	0	0.5	0	0	0.5	1.5	−
		0.15	200	1.0	−	2.0	0.5	6.0	0	0	6.5	9.0	±
		0.3	200	0.5	−	13.0	28.5	72.0	0	0	75.5	76.0	+
		0.6			−	No observation for metaphase							
					−								
	+	0.075	200	0	−	0	0	0	0	0	0	0	−
		0.15	200	0	−	1.0	0.5	3.0	0	0	3.5	4.5	−
		0.3	200	0	−	3.0	6.5	33.5	0	0	36.5	36.0	+
		0.6			−	No observation for metaphase							
					−								
Positive Control (B(a)P)													
	−	0.016	200	0	−	0	0	0.5	0	0	0.5	0.5	−
	+	0.016	200	0	−	5.5	8.5	37.5	0	0	38.5	39.5	+