1,2-Dibromoethane (1,2-ジブロモエタン)

Chemical Name: 1,2-Dibromoethane
Synonym: Ethylene dibromide
Ethane, 1,2-dibromo-
Molecular weight: 187.9
Melting point: 9~10℃
Boiling point: 131~132℃

Chemical Structure

CH_2BrCH_2Br

CAS No :106-93-4
MITI No : (2)-59
ML No : 2-(13)-38
Source of Substance: Tokyo Kasei Kogyo Co., Ltd.
Lot.No.: FA001
Purity: %
Vehicle: DMSO

Judgement for
Chromosomal Aberration in CHL: Positive

IARC Evaluation : G 2A

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	−	0	0.5	0	0	0	0.5	0.5	−
	48		200	0	−	1.5	0.5	0.5	0	0	1.0	2.5	−
Test Chemical													
	24	0.1	200	0	−	0	1.0	1.5	0	0	2.5	2.5	−
		0.2	200	0.5	−	1.0	0.5	7.5	0	0	8.0	9.0	±
		0.4	200	0	−	2.5	5.0	48.0	0	0	50.0	51.0	+
		0.8				No observation for metaphase							
		1.6				No observation for metaphase							
	48	0.1	200	0.5	−	0	1.0	1.0	0	0	2.0	2.0	−
		0.2	200	0	−	1.0	0	0.5	0	0	0.5	1.5	−
		0.4	200	1.5	−	0	1.0	10.0	0	0.5	10.5	10.5	+
		0.8	200	4.5	−	7.0	24.0	68.0	0	1.5	70.5	71.5	+
		1.6				No observation for metaphase							
Positive Control (MMC)	24	0.00008	200	0.5	−	6.0	21.0	61.5	0	0.5	72.0	73.0	+
	48	0.00008	200	1.5	−	9.0	25.0	79.5	0	1.5	84.0	84.5	+

Experimental Data

	S 9 with or without	Concentration (mg/ml)	No. of Meta-Phase	Poly-ploid (%)	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													
	−	0.04	200	0.5	−	0.5	0.5	0.5	0	0	1.0	1.0	−
		0.08	200	0	−	0	0	0	0	0	0	0	−
		0.16	200	0	−	1.0	0	1.5	0	0	1.5	2.0	−
		0.24	200	0	−	1.0	0.5	1.5	0	0	2.0	3.0	−
		0.32	200	0	−	1.0	1.0	5.5	0	0	6.5	7.5	±
	+	0.04	200	0.5	−	0.5	0.5	1.0	0	0	1.5	2.0	−
		0.08	200	0.5	−	1.5	0.5	1.5	0	0	2.0	3.5	−
		0.16	200	1.0	−	4.5	2.5	10.0	0	0	11.5	15.0	+
		0.24	200	1.0	−	4.0	8.5	33.0	0	1.0	35.0	36.5	+
		0.32	No observation for metaphase										
Positive Control (B(a)P)	−	0.008	200	0	−	0.5	0	0.5	0	0	0.5	1.0	−
	+	0.008	200	0	−	3.0	4.0	16.5	0	0	19.0	20.5	+