

1,2-Dibromoethane (1,2-ジブロモエタン)

Experimental Data

Chemical Name:	1,2-Dibromoethane
Synonym	Ethylene dibromide
	Ethane, 1,2-dibromo-
Molecular weight:	187.9
Melting point:	9~10°C
Boiling point:	131~132°C
Chemical Structure	
	CH ₂ BrCH ₂ Br
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

	Treated Time (Hr)	Concentration (mg/ml)	No. of Metaphase	Poly-ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							
						Gap	CTB	CTE	CSB	CSE	Total		Judge
											-G	+G	
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	+

Judgement for Chromosomal Aberration in CHL: Positive

IARC Evaluation : G 2A

Experimental Data

	S 9 with or without	Concent- ration (mg/ml)	No. of Meta- Phase	Poly- ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							Judge
						Gap	CTB	CTE	CSB	CSE	Total		
											-G	+G	
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	+