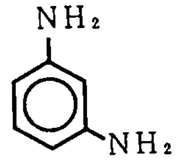
m-Phenylenediamine (m-フェニレンジアミン)

Chemical Name: m-Phenylenediamine
Synonym 1,3-Diaminobenzene
1,3-Benzenediamine
Molecular weight: 108.14
Melting point: 62-63℃
Boiling point:284-287℃

Chemical Structure



CAS No : 108-45-2
MITI No : (3)-185
ML No : 4-(12)-368
Source of Substance: Tokyo Kasei Kogyo Co., Ltd.
Lot.No.: FB002
Purity: %
Vehicle: DMSO

Judgement for
Chromosomal Aberration in CHL: Positive

IARC Evaluation : G 3

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	0	0	0	0	−
	48		200	0.5	−	0.5	0	0.5	0	0	0.5	1.0	−
Test Chemical													
	24	0.016	200	0.5	−	0	0.5	2.0	0	0	2.5	2.5	−
		0.031	200	0	−	0	4.0	1.5	0	0	5.5	5.5	±
		0.063	200	0	−	3.5	5.0	15.0	0	0	19.0	21.0	+
		0.13	200	0	−	2.0	8.5	22.5	0	0	29.0	30.0	+
		0.25				No observation for metaphase							
	48	0.016	200	0	−	2.0	5.0	7.5	0	0	12.5	14.0	+
		0.031	200	1.5	−	2.5	4.5	12.0	0	0	15.5	16.5	+
		0.063	200	3.0	−	5.0	8.0	11.0	0	0.5	17.5	20.5	+
		0.13	180	0.6	−	5.0	15.6	47.8	0	0	55.6	57.2	+
		0.25				No observation for metaphase							
Positive Control													
(MMC)	24	0.00008	200	0	−	2.5	10.5	41.5	0	0	45.5	46.0	+
	48	0.00008	200	0	−	3.5	10.5	28.5	0	0	33.5	34.5	+

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	0.5	−	0	0.5	0	0	0	0.5	0.5	−
	+		200	0	−	0.5	0	0	0	0	0	0.5	−
Test Chemical													
	−	0.13	200	0	−	1.0	0.5	1.5	0	0	2.0	3.0	−
		0.25	200	0.5	−	2.5	0.5	6.0	0	0	6.5	8.0	±
		0.5	200	0.5	−	1.0	6.0	8.0	0	0	14.0	15.0	+
		1.0	200	0.5	−	2.0	4.5	14.5	0	0	18.5	19.5	+
		2.0				No observation for metaphase							
	−	0.13	200	0	−	0.5	0	1.0	0	0	1.0	1.5	−
		0.25	200	0.5	−	0.5	1.0	1.0	0	0	2.5	3.0	−
		0.5	200	0.5	−	1.5	2.0	13.0	0	0	14.5	15.0	+
		1.0				No observation for metaphase							
		2.0				No observation for metaphase							
Positive Control													
(B(a)P)	−		200	0	−	0	0.5	0.5	0	0	1.0	1.0	−
	+		200	0.5	−	4.0	6.5	24.5	0	0	26.0	28.5	+