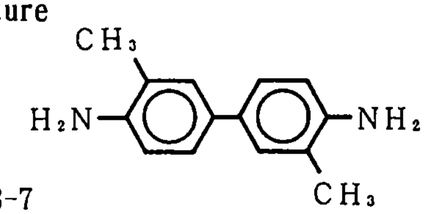
3,3'-Dimethyl-4,4'-diaminobiphenyl (3,3'-ジメチル-4,4'-ジアミノビフェニル)

Experimental Data

Chemical Name: 3,3'-Dimethyl-4,4'-diaminobiphenyl
Synonym: o-Tolidine
Molecular weight: 212.28
Melting point: 129-131℃
Boiling point: ℃

Chemical Structure



CAS No : 119-93-7
MITI No : (9)-882
Specified chemical substance: G1
Source of Substance: Wako Pure Chemical Ind., Ltd.
Lot.No.: PDE0993
Purity: %
Vehicle: DMSO

Judgement for Chromosomal Aberration in CHL: Positive

IARC Evaluation : not yet cited

	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	1.0	−	0	0.5	0	0	0	0.5	0.5	−
	48		200	1.0	−	0.5	0.5	0	0	0	0.5	1.0	−
Test Chemical													
	24	0.013	200	1.5	−	1.0	0.5	1.0	0	0	1.5	2.5	−
		0.025	200	1.5	−	1.5	0	2.0	0	0	2.0	3.5	−
		0.05	200	0.5	−	3.0	4.0	5.0	0	0	8.0	9.0	±
		0.1	200	0	−	2.0	5.5	12.0	0	0	16.0	16.5	+
		0.2				No observation for metaphase							
	48	0.013	200	0	−	0	0.5	0.5	0	0	1.0	1.0	−
		0.025	200	2.5	−	1.0	1.0	2.5	0	0	3.5	4.5	−
		0.05	200	1.0	−	3.0	4.5	14.0	0	0	15.0	17.0	+
		0.1	200	0.5	−	5.0	12.0	43.0	0	0	49.0	49.5	+
		0.2				No observation for metaphase							
Positive Control													
(MMC)	24	0.00005	200	1.5	−	2.0	4.5	26.5	0	0	28.0	29.5	+
	48	0.00005	200	2.0	−	1.5	8.0	27.0	1.5	0	32.0	33.0	+

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	2.0	−	0.5	0.5	0.5	0.5	0	1.5	2.0	−
	+		200	1.5	−	1.0	0.5	0.5	0	0	1.0	2.0	−
Test Chemical													
	−	0.025	200	0	−	0	0	1.0	0	0	1.0	1.0	−
		0.05	200	0	−	0	0	0.5	0	0	0	0.5.	−
		0.1	200	2.5	−	1.0	1.5	5.5	0	0	6.5	7.5	±
		0.2	200	0	−	2.0	6.0	8.0	0	0	11.5	13.0	+
		0.3				No observation for metaphase							
	+	0.025	200	0.5	−	0	0.5	1.0	0	0	1.5	1.5	−
		0.05	200	1.0	−	1.0	0.5	0	0	0	0.5	1.5	−
		0.1	200	0	−	0	1.5	1.5	0	0	2.5	2.5	−
		0.2	200	2.0	−	0.5	1.5	3.0	0.5	0	4.5	5.0	±
		0.3				No observation for metaphase							
Positive Control													
(B(a)P)	−		200	0.5	−	1.0	0	0	0	0	0	1.0	−
	+		200	0.5	−	5.0	7.5	47.5	0	0	49.0	50.0	+