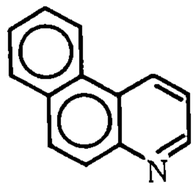
Benzo[f]quinoline (ベンゾ[f]キノリン)

Chemical Name: Benzo[f]quinoline
Synonym: β-Naphthoquinoline
Naphthopyridine
Molecular weight: 179.22
Boiling point: 210-215℃
Melting point:93.5℃(93-94℃)

Chemical Structure



CAS No : 85-02-9
Source of Substance: Tokyo Kasei Kogyo Co., Ltd.
Lot.No.: MAL01
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	—	1.0	1.5	0.5	0	0	2.0	2.5	—
	48		200	1.0	—	0.5	0	0	0	0	0	0.5	—
Test chemical													
	24	0.05%	200	1.0	—	0.5	0	0.5	0	0	0.5	1.0	—
		0.01	200	4.5	—	2.5	2.0	1.0	0	0	3.0	5.5	±
		0.02	200	14.0	+	6.0	2.0	6.0	0.5	0	8.0	12.5	+
		0.04	200	0	—	11.0	19.0	38.5	0.5	0	49.5	52.0	+
		0.06				No observation for metaphase							
	48	0.05	200	0.5	—	0	0	0	0	0	0	0	—
		0.01	200	1.0	—	2.0	0.5	0.5	0	0	1.0	3.0	—
		0.02	200	14.0	+	3.5	3.5	4.5	0	0.5	8.5	12.0	+
		0.04				No observation for metaphase							
		0.06				No observation for metaphase							
Positive Control													
(MMC)	24	0.00008	200	0.5	—	11.5	15.0	47.5	0	0	52.5	54.5	+
	48	0.00008	200	1.0	—	8.5	28.5	83.5	0	0	86.5	87.0	+

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	0.5	−	0	0	0	0	0	0	0	—
+		200	1.0	−	0.5	0.5	0.5	0	0	0.5	1.0	—
Test chemical												
—	0.01%	200	1.0	−	1.0	0	0.5	0	0	0.5	1.5	—
	0.015	200	2.5	−	0	1.0	1.0	0	0	2.0	2.0	—
	0.02	200	1.5	−	0	0.5	1.0	0	0	1.5	1.5	—
	0.025	200	6.0	±	0.5	0	0	0	0	0	0.5	—
	0.03	200	8.5	±	0	0.5	0.5	0	0	1.0	1.0	—
+	0.01	200	0	−	0.5	0	0.5	0	0.5	1.0	1.5	—
	0.015	200	1.5	−	1.0	1.5	4.0	0	0	5.5	6.5	±
	0.02	200	2.0	−	3.0	8.5	12.5	0	0	17.5	18.5	+
	0.025	189	0.5		3.7	10.1	15.3	0	0	20.6	21.2	+
	0.03				No observation for metaphase							
Positive Control												
(B(a)P) —	0.008	200	2.5	−	1.5	1.5	1.0	0	0	2.5	4.0	—
+	0.008	200	0	−	8.5	10.0	50.0	0	0	53.5	55.5	+