2'-(2-Chloro-4,6-dinitrophenylazo)-5'-ethylamino-4'-methoxyacetanilide

(2'-(2-クロロ-4,6-ジニトロフェニルアゾ)-5'-エチルアミノ-4'-メトキシアセトアニリド)

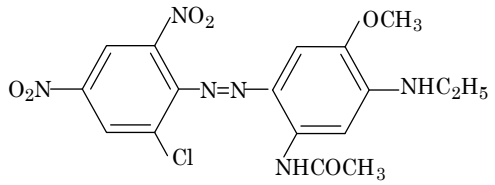
Experimental Data without Metabolic Activation-1

Chemical Name ; 2'-(2-Chloro-4,6-dinitrophenylazo)-5'-ethylamino-4'-methoxyacetanilide

Synoym ; Acetamide, *N*-[2-[(2-chloro-4,6-dinitrophenyl)azo]-5-(ethylamino)-4-methoxyphenyl]-

Molecular Weight ; 436.81
Melting Point ; 258-259℃
Boiling Point ; −
Flashing Point ; −
Molecular Formula ; $C_{17}H_{17}ClN_6O_6$

Chemical Structure



CAS No. ; 170778-70-8
MITI No. ; (3)-3665
ML No. ; −
Specified Chemical Substances ; −

Source of Substance; −
Lot No. ; −
Purity ; >99%

Vehicle ; DMSO

Treatment			No. of Metaphase	Polyploid		Cell with Structural Chromosome Aberration (%)								
Substance	Time (h)	Concentration (mg/ml)		(%)	Judgement	Gap	Chromatid		Chromosome		Others	Total		Judgement
						g	ctb	cte	csb	cse		−g	+g	
DMSO	24	1.0%	200	0.5	−	0	1	0	0	0	0	1	1	−
	48	1.0%	200	0	−	0	0	0	0	0	0	0	0	−
Test Chemical	24	0.0025	200	0	−	0.5	1.5	0.5	0	0	0	2	2	−
		0.0050	200	0.5	−	0	1.5	1	0	0	0	2.5	2.5	−
		0.010	200	1	−	0.5	1.5	0.5	0	0	0	1.5	2	−
		0.020	200	0	−	0	0.5	0.5	0	0	0	1	1	−
		0.040	200	0.5	−	0	0	1	0	0	0	1	1	−
	48	0.0025	200	1	−	0.5	0	0.5	0	0.5	0	1	1.5	−
		0.0050	200	1	−	0	1	0.5	0	0	0	1.5	1.5	−
		0.010	200	0.5	−	0	0	0	0	0	0	0	0	−
		0.020	200	3.5	−	0.5	0	0	0	0	0	0	0.5	−
		0.040	200	4.5	−	0.5	0	0.5	0	0	0	0.5	1	−
Positive Control [MMC]	24	0.00004	200	0.5	−	1	8.5	33	0	0	0	38	38	+
	48	0.00004	200	0	−	1	11	46.5	0	0.5	0	51	51.5	+

※ The precipitation of test chemical was observed in the cultre medium over 0.01mg/ml.

Judgement for
Chromosomal Aberration in CHL ; Positive

IARC Evaluation ; not yet cited

Experimental Data without Metabolic Activation-2

Treatment			No. of Metaphase	Polyploid		Cell with Structural Chromosome Aberration (%)								
Substance	Time (h)	Concent-ration (mg/ml)		(%)	Judge-ment	Gap	Chromatid		Chromosome		Others	Total		Judge-ment
						g	ctb	cte	csb	cse		−g	+g	
DMSO	28-20*	1.0%	200	0	−	0	0	1	0	0	0	1	1	−
Test Chemical	28-20*	0.0050	200	3.5	−	0	0.5	0	0	0	0	0.5	0.5	−
		0.010	200	4.5	−	0	1.5	0	0	0	0	1.5	1.5	−
		0.020	200	5	±	1	0	1.5	0	0	0	1.5	2.5	−
		0.040	200	7	±	0.5	0	1	0	0	0	1	1.5	−
		0.060	200	12	+	0.5	0.5	3	0	0	0	3.5	4	−
		0.080	200	12	+	0	1	2.5	0	0	0	3.5	3.5	−
Positive Control [MMC]	48-0	0.00004	200	0	−	1.5	6	35	0	0.5	0	37	38	+

* Test conditions: Treatment time ; 28h, Rcovery time ; 20h

※ The precipitation of test chemical was observed in the cultre medium over 0.01mg/ml.

Experimental Data with Metabolic Activation

Treatment			No. of Metaphase	Polyploid		Cell with Structural Chromosome Aberration (%)								
Substance	S9 mix	Concent-ration (mg/ml)		(%)	Judge-ment	Gap	Chromatid		Chromosome		Others	Total		Judge-ment
						g	ctb	cte	csb	cse		−g	+g	
DMSO	−	1.0%	200	1	−	0	0	0	0	0	0	0	0	−
	+	1.0%	200	1.5	−	0	0	1	0	0	0	1	1	−
Test Chemical	−	0.038	200	1.5	−	0.5	0	1	0	0	0	1	1.5	−
		0.075	200	0.5	−	0	0	0	0	0	0	0	0	−
		0.15	200	0	−	0	0	0.5	0	0	0	0.5	0.5	−
		0.30	200	0.5	−	0	0.5	0	0	0.5	0	1	1	−
		0.60	200	0.5	−	0	0	0.5	0	0	0	0.5	0.5	−
		1.2	200	1	−	0	0.5	0	0	0	0	0.5	0.5	−
	+	0.038	200	1	−	0	0.5	0.5	0	0	0	1	1	−
		0.075	200	0.5	−	0	0.5	0.5	0	0	0	1	1	−
		0.15	200	1	−	0	0	0	0	0	0	0	0	−
		0.30	200	2	−	0	0	0	0	0	0	0	0	−
		0.60	200	2	−	0	0	0	0	0	0	0	0	−
		1.2	200	0.5	−	0	0	0	0	0	0	0	0	−
Positive Control [B[a]P]	−	0.01	200	0.5	−	0.5	0	0	0	0	0	0	0.5	−
	+	0.01	200	0	−	0.5	3.5	28	0	0.5	0	29.5	30	+

※ Test conditions: Treatment time ; 6h, Rcovery time ; 18h

※ The precipitation of test chemical was observed in the cultre medium of all concentration.