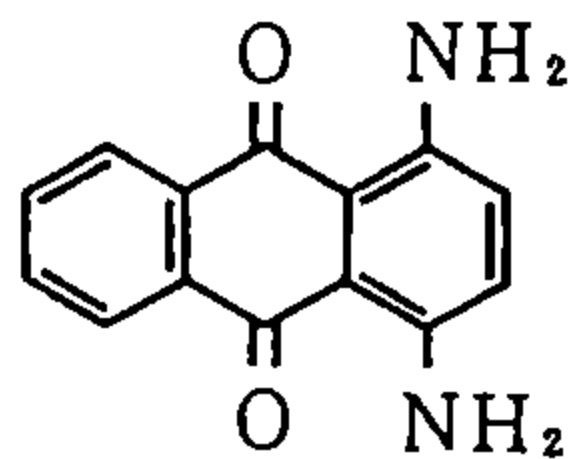


1,4-Diaminoanthraquinone (1,4-ジアミノアントラキノン)

<b>Chemical Name:</b>	1,4-Diaminoanthraquinone
<b>Synonym</b>	1,4-Diamino-9,10-anthracene -dione 9,10-Anthracenedione, 1,4- diamino-
<b>Molecular weight:</b>	238.25
<b>Melting point:</b>	265 - 268 °C
<b>Boiling point:</b>	
<b>Chemical Structure</b>	
<b>CAS No :</b>	128-95-0
<b>MITI NO:</b>	(4)-710, (5)-2539, (5)-3108
<b>Source of Substance:</b>	Tokyo Kasei kogyo Co Ltd
<b>Lot.No. :</b>	AL01
<b>Purity :</b>	(93.9 %)
<b>Vehicle :</b>	DMSO

**Mutagenicity**  
in Bacterial Test : Positive

IARC Evaluation : no yet cited

**Judgement**  
Specific Mutagenicity  
Positive  
Control

Con. μg/ plate	Experimental Data									
	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	
DMSO	(126)	(89)	(12)	(17)	(16)	(22)	(16)	(21)	(6)	(10)
	129	151	20	22	31	21	28	99	10	46
	143	163	16	14	23	21	15	114	9	56
0.153	(136)	(157)	(18)	(18)	(27)	(21)	(22)	(107)	(10)	(51)
	135	135	14	24	21	25	26	164	10	57
	170	153	14	15	22	23	30	164	11	57
0.610	(153)	(144)	(14)	(20)	(22)	(24)	(28)	(164)	(11)	(57)
	145	163	11	22	20	20	30	172	15	78
	126	162	14	22	22	33	25	192	11	96
2.44	(136)	(163)	(13)	(22)	(21)	(27)	(28)	(182)	(13)	(87)
	128	129	11	17	23	22	38	184	11	89
	113	152	23	17	23	25	28	167	17	113
9.77	(121)	(141)	(17)	(17)	(23)	(24)	(33)	(176)	(14)	(101)
	99	136	12	14	15	24	26	179	12	99
	112	149	13	14	18	30	27	169	21	118
39.1*	(106)	(143)	(13)	(14)	(17)	(27)	(27)	(174)	(17)	(109)
	102	121	14	10	14	23	29	178	22	90
	104	143	8	11	15	26	27	163	26	109
156*	(103)	(132)	(11)	(11)	(15)	(25)	(28)	(171)	(24)	(100)
	101	116	12	12	25	19	36	120	16	72
	103	140	10	15	18	19	29	128	20	87
625*	(102)	(128)	(11)	(14)	(22)	(19)	(33)	(124)	(18)	(80)
	56*	112*	8*	14*	28	26	23*	67*	25*	51*
	70*	130*	11*	20*	21	23	18*	72*	31*	70*
2500*	(63*)	(121*)	(10*)	(17*)	(25)	(25)	(21*)	(70*)	(28*)	(61*)
	46*	82*	14*	18*	20	31	25*	27*	31*	36*
	52*	86*	14*	19*	13	25	19*	26*	30*	40*
10000*	(49*)	(84*)	(14*)	(19*)	(17)	(28)	(22*)	(27*)	(31*)	(38*)
	-	-	-	-	-	-	+	+	+	+
							1740	562000	2870	268000
	AF2	2AA	NaN <sub>3</sub>	2AA	AF2	2AA	AF2	2AA	9AA	2AA
	(728)	(1140)	(349)	(264)	(230)	(831)	(496)	(359)	(266)	(191)

\* : Substances in this concentration were markedly precipitated.

Experimental Data				
Con. $\mu$ g/ plate	Number of Revertants/plate			
	Frame-shift			
	TA98		TA1537	
	S9-	S9+	S9-	S9+
<u>DMSO</u>	( 17 )	( 23 )	( 7 )	( 13 )
		23		10
		26		7
<u>0.0191</u>		( 25 )		( 9 )
		23		14
		25		9
<u>0.0381</u>		( 24 )		( 12 )
		31		8
		18		13
<u>0.0763</u>		( 25 )		( 11 )
		37		20
		47		13
<u>0.153</u>		( 42 )		( 17 )
	21	47	9	26
	15	60	6	24
<u>0.305</u>	( 18 )	( 54 )	( 8 )	( 25 )
	17	101	8	30
	28	82	11	34
<u>0.610</u>	( 23 )	( 92 )	( 10 )	( 32 )
	24	102	7	41
	22	143	14	62
<u>1.22</u>	( 23 )	( 123 )	( 11 )	( 52 )
	23	165	9	43
	21	169	11	69
<u>2.44</u>	( 22 )	( 167 )	( 10 )	( 56 )
	32		6	
	23		11	
<u>4.88</u>	( 28 )		( 9 )	

Experimental Data				
Con. $\mu$ g/ plate	Number of Revertants/plate			
	Frame-shift			
	TA98		TA1537	
	S9-	S9+	S9-	S9+
<u>DMSO</u>	( 17 )	( 23 )	( 7 )	( 13 )
		22		9
		34		10
<u>9.77</u>	( 28 )		( 10 )	
		33		17
		30		25
<u>19.5</u>	( 32 )		( 21 )	
		31		19
		26		21
<u>39.1*</u>	( 29 )		( 20 )	
		26		33
		36		24
<u>78.1*</u>	( 31 )		( 29 )	
		23		24
		28		32
<u>156*</u>	( 26 )		( 28 )	
		15		
		33		
<u>313*</u>	( 24 )			
		21*		
		24*		
<u>625*</u>	( 23* )			
		25*		
		22*		
<u>1250*</u>	( 24* )			
		24*		
		24*		
<u>2500*</u>	( 24* )			

Judgement	-	+	+	+
Specific Mutagenicity		113000	718	32000
Positive		AF2	2AA	9AA
Control	( 490 )	( 357 )	( 267 )	( 252 )

\* : Substances in this concentration were markedly precipitated.

		Experimental Data					
Con. $\mu$ g/ plate	Number of Revertants/plate						
	Base-substitution						
	TA100		TA1535		WP2uvrA		
	S9-	S9+	S9-	S9+	S9-	S9+	
<u>DMSO</u>	( 149 )	( 122 )	( 17 )	( 15 )	( 31 )	( 34 )	
	131	153	13	17			
	131	140	17	15			
<u>19.5</u>	( 131 )	( 147 )	( 15 )	( 16 )			
	120	149	8	18			
	118	148	7	20			
<u>39.1*</u>	( 119 )	( 149 )	( 8 )	( 19 )			
	115	126	18	12	26	30	
	110	137	12	15	35	35	
<u>78.1*</u>	( 113 )	( 132 )	( 15 )	( 14 )	( 31 )	( 33 )	
	89	121	16	9	21	32	
	107	136	10	10	34	36	
<u>156*</u>	( 98 )	( 129 )	( 13 )	( 10 )	( 28 )	( 34 )	
	103	124	13	14	30	30	
	101	99	22	14	30	16	
<u>313*</u>	( 102 )	( 112 )	( 18 )	( 14 )	( 30 )	( 23 )	
	103	121	17	21	23	47	
	126	115	13	17	23	38	
<u>625*</u>	( 115 )	( 118 )	( 15 )	( 19 )	( 23 )	( 43 )	
	108*	97*	16*	16*	31	32	
	97*	108*	12*	17*	29	32	
<u>1250*</u>	( 103* )	( 103* )	( 14* )	( 17* )	( 30 )	( 32 )	
	90*	100*	12*	8*	19	26	
	96*	94*	9*	16*	25	47	
<u>2500*</u>	( 93* )	( 97* )	( 11* )	( 12* )	( 22 )	( 37 )	
					32	29	
					23	28	
<u>5000*</u>					( 28 )	( 29 )	
					21	32	
					20	28	
<u>10000*</u>					( 21 )	( 30 )	
Judgement	—	—	—	—	—	—	
Specific Mutagenicity							
Positive	AF2	2AA	NaN <sub>3</sub>	2AA	AF2	2AA	
Control	( 738 )	( 1258 )	( 390 )	( 327 )	( 203 )	( 837 )	

\* : Substances in this concentration were markedly precipitated.