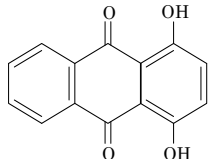


1,4-Dihydroxyanthraquinone

(1,4-ジヒドロキシアントラキノン)

Experimental Data-1

(B9607-1/2)

Chemical Name	: 1,4-Dihydroxyanthraquinone
Synonym	: <u>Quinizarin</u> 1,4-Dihydroxy-9,10-anthracenedione <u>C.I. 58050</u> <u>C.I. Solvent Orange 86</u> キノザリン <u>C.I. ソルベント オレンジ-86</u>
Molecular Weight	: 240.22
Melting Point	: 198-199°C[Aldrich]
Boiling Point	: -
Flashing Point	: -
Molecular Formula	: C ₁₄ H ₈ O ₄
Chemical Structure	
CAS No.	: 81-64-1
MITI No.	: (4)-704, (5)-5055
ML No.	: -
Specified Chemical Substances	: -
Source of Substance	: Tokyo Kasei Kogyo Co., Ltd.
Lot No.	: GD01
Purity	: 97.3%
Vehicle	: DMSO

Conc. μ g/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	(149)	(131)	(9)	(9)	(22)	(25)	(20)	(24)	(7)	(9)
1 .22	130 151 (141)	134 122 (128)	7 5 (6)	8 3 (6)			20 30 (25)	18 21 (20)	8 8 (8)	10 20 (15)
4 .88	146 158 (152)	146 149 (148)	10 13 (12)	11 6 (9)			21 24 (23)	23 23 (23)	7 6 (7)	17 13 (15)
19 .5	156 144 (150)	171 186 (179)	15 11 (13)	8 5 (7)			16 14 (15)	32 22 (27)	11 14 (13)	23 17 (20)
78 .1 †	164 173 (169)	153 159 (156)	8 5 (7)	11 8 (10)			16 16 (16)	26 35 (31)	23 21 (22)	29 31 (30)
156 †					14 18 (16)	26 17 (22)				
313 †	153 164 (159)	151 153 (152)	12 7 (10)	9 12 (11)	26 19 (23)	17 20 (19)	15 14 (15)	44 32 (38)	23 18 (21)	34 35 (35)
625 †					21 21 (21)	24 25 (25)				
1250 †	165 143 (154)	165 147 (156)	7 5 (6)	8 10 (9)	14 15 (15)	16 27 (22)	19 * 19 * (19 *)	25 * 33 * (29 *)	20 27 (24)	39 39 (39)
2500 †					21 23 (22)	27 24 (26)				
5000 †	172 * 157 * (165 *)	171 * 164 * (168 *)	4 * 6 * (5 *)	10 * 10 * (10 *)	26 * 21 * (24 *)	23 * 27 * (25 *)	11 * 11 * (11 *)	31 * 16 * (24 *)	29 * 32 * (31 *)	33 * 43 * (38 *)
Judgement	-	-	-	-	-	-	-	-	+	+
Specific Mutagenicity									192	564
Positive Control	AF-2 (629)	2-AA (1130)	NaN ₃ (227)	2-AA (195)	NaN ₃ (227)	2-AA (195)	AF-2 (322)	2-AA (385)	9-AA (631)	2-AA (139)

* Growth inhibition was observed.

† Test chemical was precipitated with and without S9mix.

Experimental Data-2

(B9607-2/2)

Conc. μ g/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 _{uvrA}		TA98		TA1537	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	(136)	(145)	(5)	(10)	(18)	(24)	(10)	(18)	(4)	(8)
4 .88									10 5 (8)	7 10 (9)
9 .77									13 8 (11)	13 8 (11)
19 .5									22 14 (18)	21 22 (22)
39 .1							18 14 (16)	25 15 (20)	18 20 (19)	29 18 (24)
78 .1 †							17 12 (15)	17 17 (17)	16 16 (16)	26 28 (27)
156 †	163 172 (168)	182 174 (178)			18 17 (18)	20 26 (23)	6 14 (10)	23 23 (23)	16 13 (15)	24 35 (30)
313 †	179 183 (181)	205 216 (211)	7 6 (7)	6 6 (6)	16 17 (17)	19 17 (18)	17 24 (21)	19 23 (21)		
625 †	161 191 (176)	208 214 (211)	3 8 (6)	6 8 (7)	18 18 (18)	25 13 (19)	10 11 (11)	14 10 (12)		
1250 †	165 166 (166)	195 209 (202)	6 5 (6)	5 11 (8)	19 19 (19)	25 15 (20)	14 * 20 * (17 *)	25 * 24 * (25 *)		
2500 †	170 186 (178)	200 156 (178)	7 8 (8)	11 10 (11)	22 19 (21)	23 22 (23)				
5000 †	143 * 144 * (144 *)	195 * 183 * (189 *)	10 * 7 * (9 *)	4 * 9 * (7 *)	22 * 20 * (21 *)	27 * 22 * (25 *)				
Judgement	-	-	-	-	-	-	-	-	+	+
Specific Mutagenicity									820	143
Positive Control	AF-2 (634)	2-AA (1187)	NaN ₃ (267)	2-AA (241)	AF-2 (204)	2-AA (935)	AF-2 (374)	2-AA (413)	9-AA (511)	2-AA (143)