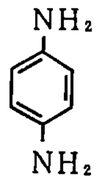
p-Phenylenediamine (p-フェニレンジアミン)

Chemical Name	p-Phenylenediamine
Synonym	p-Diaminobenzene
Molecular weight: 108.14	
Melting point: 138-145℃	
Boiling point: 267℃	
Flashing point: 155.6℃	

Chemical Structure



CAS No :106-50-3
MITI No: (3)-185
Source of Substance:Tokyo Kasei Kogyo Co.Ltd
Lot.No. : FBX02
Purity : 98 %
Vehicle : DMSO

Mutagenicity
in Bacterial Test : Positive

IARC Evaluation : G 3

Experimental Data

Con. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(123)	(120)	(9)	(14)	(28)	(27)	(18)	(22)	(8)	(11)
	149	108	9	11	20	17	21	21	10	9
	163	121	9	13	20	25	6	32	3	8
0.0763	(156)	(115)	(9)	(12)	(20)	(21)	(14)	(27)	(7)	(9)
	159	112	14	9	24	26	16	23	10	9
	153	128	15	13	16	18	14	21	9	13
0.305	(156)	(120)	(15)	(11)	(20)	(22)	(15)	(22)	(10)	(11)
	141	121	17	14	20	29	15	26	7	7
	133	116	7	20	23	28	18	24	9	2
1.22	(137)	(119)	(12)	(17)	(22)	(29)	(17)	(25)	(8)	(5)
	150	120	17	8	30	21	11	21	5	9
	136	114	7	7	26	31	21	30	3	7
4.88	(143)	(117)	(12)	(8)	(28)	(26)	(16)	(26)	(4)	(8)
	150	135	14	6	16	22	18	25	10	9
	155	127	10	9	14	24	22	24	5	10
19.5	(153)	(131)	(12)	(8)	(15)	(23)	(20)	(25)	(8)	(10)
	174	142	14	5	17	24	21	101	6	10
	144	139	11	17	24	30	17	83	8	7
78.1	(159)	(141)	(13)	(11)	(21)	(27)	(19)	(92)	(7)	(9)
	179	145	5	15	24	24	24	253	6	3
	187	136	7	18	14	36	17	278	5	10
313	(183)	(141)	(6)	(17)	(19)	(30)	(21)	(266)	(6)	(7)
	197	151	9	14	29	39	16	285	3	16
	200	178	8	8	25	26	23	325	3	26
1250	(199)	(165)	(9)	(11)	(27)	(33)	(20)	(305)	(3)	(21)
	234	151	7	7	44	54	14	85	5	17
	166	164	10	14	41	43	16	70	7	11
5000	(200)	(158)	(9)	(11)	(43)	(49)	(15)	(78)	(6)	(14)
Judgement	−	−	−	−	−	−	−	+	−	−
Specific Mutagenicity								896		
Positive Control	AF2	2AA	NaN_3	2AA	AF2	2AA	AF2	2AA	9AA	2AA
	(847)	(1209)	(345)	(308)	(232)	(977)	(569)	(309)	(406)	(207)

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	(151)	(134)	(20)	(20)	(18)	(25)	(18)	(26)	(7)	(8)
								36		
								37		
9.77								(37)		
								36		
								31		
19.5								(34)		
								39		
								38		
39.1								(39)		
	166	164	22	19	24	22	15	78	6	6
	164	150	15	24	10	26	8	55	13	7
78.1	(165)	(157)	(19)	(22)	(17)	(24)	(12)	(67)	(10)	(7)
	165	160	13	24	20	25	15	112	9	8
	148	159	14	12	16	33	10	102	6	6
156	(157)	(160)	(14)	(18)	(18)	(29)	(13)	(107)	(8)	(7)
	122	158	19	8	15	25	20	209	6	7
	130	145	16	20	23	32	11	236	5	7
313	(126)	(152)	(18)	(14)	(19)	(29)	(16)	(223)	(6)	(7)
	116	130	22	14	24	25	21	278	6	14
	136	157	16	18	11	30	21	305	5	8
625	(126)	(144)	(19)	(16)	(18)	(28)	(21)	(292)	(6)	(11)

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	Experimental Data									
Con. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	192	159	9	15	22	26	22		3	15
	190	152	16	15	16	23	10		6	13
1250	(191)	(156)	(13)	(15)	(19)	(25)	(16)		(5)	(14)
	208	188	12	20	28	40	11		3	21
	172	167	21	20	31	44	21		2	28
2500	(190)	(178)	(17)	(20)	(30)	(42)	(16)		(3)	(25)
	174	134	14	23	34	43	10		2	14
	167	143	14	17	46	45	16		6	10
5000	(171)	(139)	(14)	(20)	(40)	(44)	(13)		(4)	(12)
Judgement	−	−	−	−	+	−	−	+	−	+
Specific Mutagenicity					4.40			629		6.80
Positive Control	AF2	2AA	NaN_3	2AA	AF2	2AA	AF2	2AA	9AA	2AA
	(842)	(966)	(322)	(278)	(229)	(861)	(556)	(389)	(366)	(228)