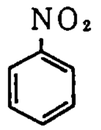
Nitrobenzene (ニトロベンゼン)

Chemical Name: Nitrobenzene
Synonym: Benzene, nitro-
Molecular weight: 123.11
Melting point: 8.7℃
Boiling point: 210.85℃, 85.4 (10 mmHg)
53.1 (1 mmHg)

Chemical Structure



CAS No : 98-95-3
MITI No: (3)-436
Source of Substance: Wako Pure Chem. Ind. Ltd
Lot. No. : WDL5458
Purity : 99 %
Vehicle : DMSO

Mutagenicity
in Bacterial Test : Negative

IARC Evaluation : not yet cited

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	(112)	(107)	(10)	(12)	(27)	(32)	(16)	(26)	(8)	(10)
	122	120	8	11	18	20	10	23	3	7
	116	107	3	10	24	26	14	18	7	8
0.0763	(119)	(114)	(6)	(11)	(21)	(23)	(12)	(21)	(5)	(8)
	126	134	9	9	22	25	23	26	6	11
	120	124	7	8	24	37	22	17	5	7
0.305	(123)	(129)	(8)	(9)	(23)	(31)	(23)	(22)	(6)	(9)
	127	111	7	11	20	23	21	23	6	9
	115	114	8	11	24	39	13	29	2	9
1.22	(121)	(113)	(8)	(11)	(22)	(31)	(17)	(26)	(4)	(9)
	120	112	14	9	25	30	15	20	8	6
	131	123	10	9	15	22	16	23	6	9
4.88	(126)	(118)	(12)	(9)	(20)	(26)	(16)	(22)	(7)	(8)
	113	124	5	11	22	25	22	10	9	8
	121	119	5	10	14	28	22	23	5	8
19.5	(117)	(122)	(5)	(11)	(18)	(27)	(22)	(17)	(7)	(8)
	97	109	6	13	20	32	9	23	5	6
	122	126	10	6	18	23	13	26	6	11
78.1	(110)	(118)	(8)	(10)	(19)	(28)	(11)	(25)	(6)	(9)
	126	116	10	5	16	24	21	23	6	8
	106	136	14	10	20	30	21	23	6	9
313	(116)	(126)	(12)	(8)	(18)	(27)	(21)	(23)	(6)	(9)
	0*	0*	0*	0*	10*	24*	0*	0*	0*	0*
	0*	0*	0*	0*	13*	13*	0*	0*	0*	0*
1250	(0*)	(0*)	(0*)	(0*)	(12*)	(19*)	(0*)	(0*)	(0*)	(0*)
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity Positive Control	AF2	2AA	NaN_3	2AA	AF2	2AA	AF2	2AA	9AA	2AA
	(811)	(1075)	(332)	(290)	(301)	(879)	(430)	(251)	(338)	(159)

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	(105)	(123)	(10)	(9)	(18)	(30)	(17)	(28)	(8)	(9)
	105	104	13	14			22	29	6	8
	129	124	6	14			10	17	6	10
19.5	(117)	(114)	(10)	(14)			(16)	(23)	(6)	(9)
	102	116	6	8	21	23	17	32	7	10
	117	121	15	9	14	21	17	24	5	15
39.1	(110)	(119)	(11)	(9)	(18)	(22)	(17)	(28)	(6)	(13)
	120	131	6	13	22	25	13	28	6	9
	143	108	6	9	22	16	18	25	7	11
78.1	(132)	(120)	(6)	(11)	(22)	(21)	(16)	(27)	(7)	(10)
	120	126	9	6	17	23	13	25	6	11
	126	145	11	15	16	33	34	23	8	10
156	(123)	(136)	(10)	(11)	(17)	(28)	(24)	(24)	(7)	(11)
	123	128	10	10	15	22	14	28	5	11
	116	119	14	16	24	30	22	23	11	6
313	(120)	(124)	(12)	(13)	(20)	(26)	(18)	(26)	(8)	(9)
	128	150	9	8	15	20	16	24	6	14
	124	152	11	13	24	23	20	31	6	13
625	(126)	(151)	(10)	(11)	(20)	(22)	(18)	(28)	(6)	(14)
	0*	0*	0*	0*	14*	20*	0*	0*	0*	0*
	0*	0*	0*	0*	15*	14*	0*	0*	0*	0*
1250	(0*)	(0*)	(0*)	(0*)	(15*)	(17*)	(0*)	(0*)	(0*)	(0*)
2500					(0*)	(0*)				
Judgement	–	–	–	–	–	–	–	–	–	–
Specific Mutagenicity Positive Control	AF2	2AA	NaN_3	2AA	AF2	2AA	AF2	2AA	9AA	2AA
	(763)	(1034)	(379)	(255)	(320)	(927)	(515)	(326)	(517)	(153)

Con. μg/plate	Experimental Data: Number of Revertants/plate, Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(253)	(320)	(350)	(439)	(185)	(262)
	209	298	313	395	169	306
	267	241	323	374	185	258
0.0763	(238)	(270)	(318)	(385)	(177)	(282)
	249	269	336	401	226	253
	254	294	356	393	198	262
0.305	(252)	(282)	(346)	(397)	(212)	(258)
	226	256	319	424	183	285
	256	274	335	422	172	258
1.22	(241)	(265)	(327)	(423)	(178)	(272)
	248	298	318	408	202	276
	252	329	300	402	212	290
4.88	(250)	(314)	(309)	(405)	(207)	(283)
	278	286	336	422	179	268
	269	295	340	391	213	256
19.5	(274)	(291)	(338)	(407)	(196)	(262)
	222	285	319	387	184	271
	235	317	352	405	178	239
78.1	(229)	(301)	(336)	(396)	(181)	(255)
	235	298	303	390	173	259
	232	291	307	337	197	202
313	(234)	(295)	(305)	(364)	(185)	(231)
	146	258	152*	219*	85*	131*
	185	222	206*	243*	98*	136*
1250	(166)	(240)	(179*)	(231*)	(92*)	(134*)
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM	2AA	PA	2AA	AF2	2AA
	(886)	(1398)	(2694)	(913)	(1637)	(1178)

Con. μg/plate	Experimental Data: Number of Revertants/plate, Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(253)	(292)	(227)	(354)	(127)	(201)
			254	288	127	200
			241	306	98	181
39.1			(248)	(297)	(113)	(191)
	259	338	256	280	117	153
	276	297	252	341	163	187
78.1	(268)	(318)	(254)	(311)	(140)	(170)
	229	306	241	299	109	180
	249	341	250	303	128	207
156	(239)	(324)	(246)	(301)	(119)	(194)
	222	274	261	306	149	195
	249	344	230	312	121	170
313	(236)	(309)	(246)	(309)	(135)	(183)
	240	322	238	280	119	186
	250	328	246	290	143	206
625	(245)	(325)	(242)	(285)	(131)	(196)
	66*	83*	0*	0*	62*	97*
	104*	82*	0*	0*	43*	206*
1250	(85*)	(83*)	(0*)	(0*)	(53*)	(152*)
2500	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
5000	(0*)	(0*)				
Judgement	—	—	—	—	—	—
Specific Mutagenicity Positive Control	BLM	2AA	PA	2AA	AF2	2AA
	(731)	(1605)	(1164)	(923)	(1751)	(1026)