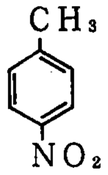
p-Nitrotoluene (p-ニトロトルエン)

Chemical Name: p-Nitrotoluene
Synonym p-Methylnitrobenzene
Benzene, 1-methyl-4-nitro-
Molecular weight: 137.14
Melting point: 52~54℃
Boiling point: 238~238.5℃
Flashing point: 106℃
Chemical Structure



CAS No : 99-99-0
MITI No: (3)-437
Source of Substance:Tokyo Kasei Kogyo Co.Ltd
Lot.No. : FAV01
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	(110)	(107)	(10)	(12)	(27)	(32)	(16)	(26)	(8)	(10)
	98	115	11	7	20	32	10	21	6	10
	106	104	17	9	20	31	22	25	9	14
0.0763	(102)	(110)	(14)	(8)	(20)	(32)	(16)	(23)	(8)	(12)
	106	138	6	2	20	38	13	17	8	13
	106	107	9	13	25	38	21	16	8	10
0.305	(106)	(123)	(8)	(8)	(23)	(38)	(17)	(17)	(8)	(12)
	131	114	7	13	18	55	18	22	8	13
	108	104	8	11	25	37	20	24	6	11
1.22	(120)	(109)	(8)	(12)	(22)	(46)	(19)	(23)	(7)	(12)
	104	130	7	16	31	40	16	18	7	13
	102	119	9	10	26	36	23	23	5	9
4.88	(103)	(125)	(8)	(13)	(29)	(38)	(20)	(21)	(6)	(11)
	106	111	9	9	22	38	29	17	5	9
	109	113	7	5	25	36	15	28	9	9
19.5	(108)	(112)	(8)	(7)	(24)	(37)	(22)	(23)	(7)	(9)
	129	128	11	7	31	29	13	18	9	7
	127	128	9	14	32	26	9	22	10	17
78.1	(128)	(128)	(10)	(11)	(32)	(28)	(11)	(20)	(10)	(12)
	149*	163	10*	14	22	43	14*	25	3*	15
	136*	163	15*	11	24	37	10*	26	9*	14
313	(143*)	(163)	(13*)	(13)	(23)	(40)	(12*)	(26)	(6*)	(15)
	156*	0*	0*	0*	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
1250	(78*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity Positive Control	AF2 (809)	2AA (1052)	NaN_3 (331)	2AA (288)	AF2 (302)	2AA (899)	AF2 (426)	2AA (265)	9AA (341)	2AA (157)

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	(106)	(125)	(10)	(9)	(18)	(30)	(17)	(27)	(8)	(9)
	105		13				21		7	
	117		9				16		6	
9.77	(111)		(11)				(19)		(7)	
	109	113	17	16	25	26	16	29	9	14
	105	153	7	15	28	26	9	25	6	9
19.5	(107)	(133)	(12)	(16)	(27)	(26)	(13)	(27)	(8)	(12)
	111	129	14	9	18	32	16	26	8	14
	119	121	8	13	29	31	11	29	8	14
39.1	(115)	(125)	(11)	(11)	(24)	(32)	(14)	(28)	(8)	(14)
	137	146	10	14	28	25	16	25	7	6
	139	108	10	11	18	29	17	30	6	10
78.1	(138)	(127)	(10)	(13)	(23)	(27)	(17)	(28)	(7)	(8)
	143	141	8	14	36	17	18	24	5	11
	148	135	14	14	14	25	20	22	10	11
156	(146)	(138)	(11)	(14)	(25)	(21)	(19)	(23)	(8)	(11)
	137	156	11*	14	16	28	26	34	11	13
	149	193	10*	11	21	22	22	21	11	10
313	(143)	(175)	(11*)	(13)	(19)	(25)	(24)	(28)	(11)	(12)
	0*	0*	0*	0*	0*	14*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	24*	0*	0*	0*	0*
625	(0*)	(0*)	(0*)	(0*)	(0*)	(19*)	(0*)	(0*)	(0*)	(0*)
1250		(0*)		(0*)	(0*)	(0*)		(0*)		(0*)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity										
Positive Control	AF2	2AA	NaN_3	2AA	AF2	2AA	AF2	2AA	9AA	2AA
	(772)	(1050)	(370)	(251)	(323)	(930)	(516)	(331)	(526)	(153)

Experimental Data						
Con. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(217)	(300)	(262)	(346)	(150)	(214)
	220	263	256	359	157	209
	200	286	266	344	135	233
0.0763	(210)	(275)	(261)	(352)	(146)	(221)
	191	247	233	350	135	186
	201	282	285	334	143	227
0.305	(196)	(265)	(259)	(342)	(139)	(207)
	230	258	261	424	139	206
	236	285	236	348	126	220
1.22	(233)	(272)	(249)	(386)	(133)	(213)
	215	287	230	358	156	255
	222	303	263	349	134	211
4.88	(219)	(295)	(247)	(354)	(145)	(233)
	201	312	295	347	178	202
	208	318	260	314	137	213
19.5	(205)	(315)	(278)	(331)	(158)	(208)
	228	328	288	320	171	223
	233	314	281	338	204	187
78.1	(231)	(321)	(285)	(329)	(188)	(205)
	222	285	297	362	176	232
	201	318	256	346	158	233
313	(212)	(302)	(277)	(354)	(167)	(233)
1250	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM	2AA	PA	2AA	AF2	2AA
	(769)	(1976)	(1205)	(1007)	(1813)	(1113)

Con. μg/plate	Experimental Data: Number of Revertants/plate, Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(249)	(287)	(230)	(352)	(122)	(195)
	221	271	256	309	120	176
	194	303	240	306	142	186
19.5	(208)	(287)	(248)	(308)	(131)	(181)
	227	265	279	293	145	188
	220	265	275	307	138	191
39.1	(224)	(265)	(277)	(300)	(142)	(190)
	200	292	253	320	145	208
	213	235	273	323	105	218
78.1	(207)	(264)	(263)	(322)	(125)	(213)
	228	305	246	299	151	205
	221	300	292	288	163	225
156	(225)	(303)	(269)	(294)	(157)	(215)
	225	300	278	0*	174	255
	222	275	281	0*	156	238
313	(224)	(288)	(280)	(0*)	(165)	(247)
	45*	29*	0*	0*	29*	60*
	232*	36*	0*	0*	49*	198*
625	(139*)	(33*)	(0*)	(0*)	(39*)	(129*)
1250	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM	2AA	PA	2AA	AF2	2AA
	(690)	(1516)	(1105)	(940)	(1673)	(1011)