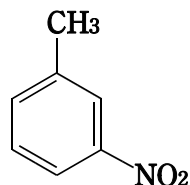


[m-ニトロトルエン]

Chemical Name; m-Nitrotoluene
 Synonym ; 1-Methyl-3-nitrobenzene
 3-Nitrotoluene
 1-メチル-3-ニトロベンゼン
 3-ニトロトルエン

Molecular Weight ; 137.14
 Melting Point ; 16 ℃ [CHCD]
 15 - 16 ℃ [Aldrich]
 Boiling Point ; 227.2-227.5 ℃ (736mmHg) [CHCD]
 230 - 231 ℃ [Aldrich]
 Flashing Point ; 101 ℃ [Aldrich]
 Molecular Formula; C₇H₇NO₂

Chemical Structure



CAS No. ; 99-08-1
 MITI No. ; (3)-437
 ML No. ; -
 Specified Chemical Substances; -

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
 Lot No. ; FH001
 Purity ; 99 %

Vehicle ; DMSO

Mutagenicity in Bacterial Test ; **Negative**

IARC Evaluation ; not yet cited

Conc. 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	(149)	(162)	(15)	(16)	(32)	(38)	(18)	(28)	(11)	(12)
	151	156	26	23	34	47	26	34	15	10
	144	165	22	9	24	32	22	22	13	13
0.0763	(148)	(161)	(24)	(16)	(29)	(40)	(24)	(28)	(14)	(12)
	133	138	13	17	39	46	22	32	17	9
	166	146	20	22	23	38	17	18	17	10
0.305	(150)	(142)	(17)	(20)	(31)	(42)	(20)	(25)	(17)	(10)
	194	160	18	21	41	40	24	20	9	10
	155	130	13	16	49	32	15	30	10	7
1.22	(175)	(145)	(16)	(19)	(45)	(36)	(20)	(25)	(10)	(9)
	181	188	14	31	28	38	26	30	16	21
	204	176	21	23	36	52	16	28	10	21
4.88	(193)	(182)	(18)	(27)	(32)	(45)	(21)	(29)	(13)	(21)
	183	146	14	18	32	39	18	33	9	15
	156	173	17	11	30	44	18	21	7	10
19.5	(170)	(160)	(16)	(15)	(31)	(42)	(18)	(27)	(8)	(13)
	185	174	24	18	41	33	15	23	10	17
	157	153	16	16	29	34	26	32	11	18
78.1	(171)	(164)	(20)	(17)	(35)	(34)	(21)	(28)	(11)	(18)
	158*	184	11*	11	31	30	17*	29	11*	16
	137*	176	8*	25	30	39	18*	26	11*	17
313	(148*)	(180)	(10*)	(18)	(31)	(35)	(18*)	(28)	(11*)	(17)
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
1250	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
	0*	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	AF-2 (763)	2-AA (917)	NaN ₃ (351)	2-AA (238)	AF-2 (185)	2-AA (912)	AF-2 (516)	2-AA (202)	9-AA (472)	2-AA (180)
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Conc. 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+
	(143)	(160)	(13)	(9)	(32)	(41)	(15)	(20)	(8)	(11)
DMSO	149		7				25		9	
	171		11				17		3	
4.88	(160)		(9)				(21)		(6)	
	141		6				17		8	
	131		3				23		7	
9.77	(136)		(5)				(20)		(8)	
	157	145	8	16	22	34	11	22	10	9
	150	149	6	11	30	36	20	28	3	3
19.5	(154)	(147)	(7)	(14)	(26)	(35)	(16)	(25)	(7)	(6)
	178	139	13	9	32	38	18	15	9	6
	148	146	10	14	31	36	15	26	9	5
39.1	(163)	(143)	(12)	(12)	(32)	(37)	(17)	(21)	(9)	(6)
	139	123	10	10	32	43	20	26	2	10
	162	153	3	15	33	45	22	18	1	10
78.1	(151)	(138)	(7)	(13)	(33)	(44)	(21)	(22)	(2)	(10)
	135*	121	6*	10	28	45	8*	16	8*	8
	122*	138	9*	9	32	52	14*	17	7*	11
156	(129*)	(130)	(8*)	(10)	(30)	(49)	(11*)	(17)	(8*)	(10)
	0*	16*	0*	3*	10*	10*	0*	3	0*	6*
	0*	14*	0*	5*	21*	13*	0*	2*	0*	1*
313	(0*)	(15*)	(0*)	(4*)	(16*)	(12*)	(0*)	(3*)	(0*)	(4*)
		0*		0*	0*	0*		0*		0*
		0*		0*	0*	0*		0*		0*
625		(0*)		(0*)	(0*)	(0*)		(0*)		(0*)
		0*		0*	0*	0*		0*		0*
		0*		0*	0*	0*		0*		0*
1250		(0*)		(0*)	(0*)	(0*)		(0*)		(0*)
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 (743)	2-AA (920)	NaN ₃ (311)	2-AA (207)	AF-2 (160)	2-AA (1046)	AF-2 (475)	2-AA (270)	9-AA (457)	2-AA (146)

Experimental Data - 3

Conc. µg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(256)	(396)	(395)	(475)	(86)	(138)
	229	412	455	480	75	137
	265	383	432	451	81	143
0.0763	(247)	(398)	(444)	(466)	(78)	(140)
	239	387	411	445	61	138
	245	393	406	514	66	126
0.305	(242)	(390)	(409)	(480)	(64)	(132)
	271	395	414	493	54	100
	242	370	419	467	52	123
1.22	(257)	(383)	(417)	(480)	(53)	(112)
	273	347	421	461	61	123
	211	412	477	461	76	131
4.88	(242)	(380)	(449)	(461)	(69)	(127)
	230	400	440	436	67	108
	241	354	401	450	62	105
19.5	(236)	(377)	(421)	(443)	(65)	(107)
	253	405	401	516	71	137
	229	388	417	445	68	123
78.1	(241)	(397)	(409)	(481)	(70)	(130)
	222	407	450	471	54	126
	225	394	447	394	52	129
313	(224)	(401)	(449)	(433)	(53)	(128)
	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*
1250	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM (931)	2-AA (1801)	PA (1286)	2-AA (747)	AF-2 (2112)	2-AA (995)

Experimental Data - 4

(B9315-3/3)

Conc. µg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(255)	(367)	(304)	(440)	(85)	(118)
	281	318	281	435	74	105
	160	329	331	414	89	124
19.5	(271)	(324)	(306)	(425)	(82)	(115)
	284	342	297	407	82	109
	272	318	310	348	92	131
39.1	(278)	(330)	(304)	(378)	(87)	(120)
	284	324	274	387	75	111
	262	353	223	447	79	110
78.1	(273)	(339)	(249)	(417)	(77)	(106)
	246	320	248	334	76	114
	275	350	275	423	75	115
156	(261)	(335)	(262)	(379)	(76)	(115)
	241	370	337	364	97	124
	256	347	300	336	82	107
313	(249)	(359)	(319)	(350)	(90)	(116)
	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*
625	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*
1250	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM (720)	2-AA (1822)	PA (1419)	2-AA (1026)	AF-2 (1377)	2-AA (989)