

o-Toluidine[o-トルイジン]

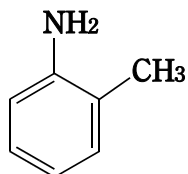
Experimental Data - 1

(B9516-1/3)

Chemical Name; o-Toluidine
 Synonym ; 2-Methylaniline
2-Methylbenzenamine
2-Aminotoluene
o-Tolylamine
2-メチルアニリン
2-メチルベンゼンアミン
2-アミノトルエン
o-トルイルアミン

Molecular Weight ; 107.16
 Melting Point ; - 28 °C [Aldrich]
 Boiling Point ; 200 - 202 °C [CHCD;Merck]
 199 - 200 °C [Aldrich]
 Flashing Point ; 85 °C [Aldrich;Merck(c.c.)]
 Molecular Formula; C₇H₉N

Chemical Structure



CAS No. ; 95-53-4
 MITI No. ; (3)-186
 ML No. ; 4-(12)-293 , 4-(12)-412
 Specified Chemical Substances; -

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
 Lot No. ; FHD01
 Purity ; 99 %

Vehicle ; DMSO

Mutagenicity in Bacterial Test ; **Negative**

IARC Evaluation ; Group 2B

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9—	Ham. S9+	S9—	Ham. S9+	S9—	Ham. S9+	S9—	Ham. S9+	S9—	Ham. S9+
DMSO	(115)	(146)	(7)	(12)	(26)	(32)	(18)	(31)	(5)	(7)
	112	131	3	15	24	24	11	26	5	3
	119	135	2	6	25	25	24	29	3	5
0.0763	(116)	(133)	(3)	(11)	(25)	(25)	(18)	(28)	(4)	(4)
	116	129	8	8	30	18	25	34	8	1
	122	148	7	10	31	30	25	17	7	7
0.305	(119)	(139)	(8)	(9)	(31)	(24)	(25)	(26)	(8)	(4)
	105	111	7	11	37	37	18	28	5	3
	75	129	8	9	17	30	16	28	5	1
1.22	(90)	(120)	(8)	(10)	(27)	(34)	(17)	(28)	(5)	(2)
	120	138	9	7	24	34	20	24	6	5
	99	139	10	13	21	32	16	36	2	2
4.88	(110)	(139)	(10)	(10)	(23)	(33)	(18)	(30)	(4)	(4)
	96	124	11	18	21	24	11	28	2	1
	116	134	3	9	28	25	18	17	6	7
19.5	(106)	(129)	(7)	(14)	(25)	(25)	(15)	(23)	(4)	(4)
	109	133	8	10	30	29	23	33	3	11
	113	117	6	8	18	30	20	23	8	5
78.1	(111)	(125)	(7)	(9)	(24)	(30)	(22)	(28)	(6)	(8)
	117	121	9	14	23	32	10	26	9	6
	101	153	6	11	32	23	14	26	9	6
313	(109)	(137)	(8)	(13)	(28)	(28)	(12)	(26)	(9)	(6)
	91	152	13	9	24	33	18	26	5	8
	93	128	7	13	23	23	22	25	10	7
1250	(92)	(140)	(10)	(11)	(24)	(28)	(20)	(26)	(8)	(8)
	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 (716)	2-AA (2764)	NaN ₃ (339)	2-AA (533)	AF-2 (220)	2-AA (1393)	AF-2 (491)	2-AA (961)	9-AA (647)	2-AA (641)

※ Ham. S9 : Hamster S9

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 <u>uvrA</u>		TA98		TA1537	
	S9— (112)	Ham. S9+ (142)	S9— (11)	Ham. S9+ (9)	S9— (19)	Ham. S9+ (21)	S9— (15)	Ham. S9+ (22)	S9— (6)	Ham. S9+ (5)
DMSO	98	143	7	10	23	17	9	28	8	3
78.1	109	145	11	11	18	23	9	20	3	5
	(104)	(144)	(9)	(11)	(21)	(20)	(9)	(24)	(6)	(4)
	96	119	11	13	20	21	15	33	5	6
156	128	108	8	7	10	11	14	28	3	3
	(112)	(114)	(10)	(10)	(15)	(16)	(15)	(31)	(4)	(5)
	101	150	3	9	18	18	14	36	2	5
313	87	133	6	7	25	22	15	18	5	5
	(94)	(142)	(5)	(8)	(22)	(20)	(15)	(27)	(4)	(5)
	96	151	8	14	15	16	9	22	2	5
625	112	130	9	8	11	16	20	21	5	3
	(104)	(141)	(9)	(11)	(13)	(16)	(15)	(22)	(4)	(4)
	94	164	11	9	15	31	16	30	2	2
1250	114	173	10	18	14	14	15	36	7	7
	(104)	(169)	(11)	(14)	(15)	(23)	(16)	(33)	(5)	(5)
	85*	156	7*	14	13	16	9*	36	6*	6
2500	74*	165	13*	11	9	24	25*	34	2*	5
	(80*)	(161)	(10*)	(13)	(11)	(20)	(17*)	(35)	(4*)	(6)
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
5000	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific Mutagenicity										
Positive Control	AF-2 (866)	2-AA (3885)	NaN ₃ (307)	2-AA (448)	AF-2 (370)	2-AA (1419)	AF-2 (413)	2-AA (1125)	9-AA (688)	2-AA (724)

※ Ham. S9 : Hamster S9

Experimental Data - 3

Conc. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9—	Ham. S9+	S9—	Ham. S9+	S9—	Ham. S9+
	(261)	(361)	(341)	(448)	(39)	(71)
DMSO	248	429	326	430	38	47
	255	365	383	450	49	57
0.0763	(252)	(397)	(355)	(440)	(44)	(52)
	245	337	340	421	44	75
	201	301	353	430	44	74
0.305	(223)	(319)	(347)	(426)	(44)	(75)
	245	350	348	411	53	86
	247	348	329	406	56	68
1.22	(246)	(349)	(339)	(409)	(55)	(77)
	258	366	320	427	68	75
	262	322	319	459	69	62
4.88	(260)	(344)	(320)	(443)	(69)	(69)
	259	383	344	435	62	67
	263	360	340	473	41	86
19.5	(261)	(372)	(342)	(454)	(52)	(77)
	241	328	318	430	61	66
	245	337	361	405	49	60
78.1	(243)	(333)	(340)	(418)	(55)	(63)
	216	338	335*	467	54	63
	290	348	332*	451	68	76
313	(253)	(343)	(334*)	(459)	(61)	(70)
	226*	303	328*	455	63	26*
	227*	314	312*	459	44	20*
1250	(227*)	(309)	(320*)	(457)	(54)	(23*)
	0*	0*	0*	0*	0*	60*
	0*	0*	0*	0*	0*	68*
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(64*)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM (797)	2-AA (1862)	PA (1471)	2-AA (2118)	AF-2 (993)	2-AA (1450)

※ Ham. S9 : Hamster S9

Experimental Data - 4

(B9516-3/3)

Conc. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9—	Ham. S9+	S9—	Ham. S9+	S9—	Ham. S9+
	(246)	(324)	(286)	(358)	(36)	(57)
DMSO			285			
			301			
4.88			(293)			
			272			
			276			
9.77			(274)			
	222		285			66
	227		278			49
19.5	(225)		(282)			(58)
	204		298			69
	208		290			62
39.1	(206)		(294)			(66)
	223	349	300	372	17	66
	222	299	299	432	29	71
78.1	(223)	(324)	(300)	(402)	(23)	(69)
	202	325	290*	378	39	66
	220	342	259*	422	49	62
156	(211)	(334)	(275*)	(400)	(44)	(64)
	221	318	282*	395	38	69
	236	352	294*	374	33	63
313	(229)	(335)	(288*)	(385)	(36)	(66)
	213*	332	275*	429	30	63*
	195*	337	280*	408	33	67*
625	(204*)	(335)	(278*)	(419)	(32)	(65*)
	227*	299		394	37	71*
	218*	332		407	32	62*
1250	(223*)	(316)		(401)	(35)	(67*)
	214*	288		380*	38*	62*
	191*	261		368*	30*	49*
2500	(203*)	(275)		(374*)	(34*)	(56*)
		0*		0*	0*	
		0*		0*	0*	
5000	(0*)	(0*)		(0*)	(0*)	
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM (689)	2-AA (1332)	PA (1411)	2-AA (1912)	AF-2 (1356)	2-AA (1594)

※ Ham. S9 : Hamster S9