

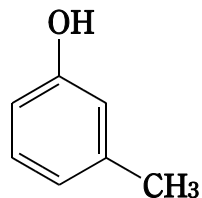
m-Cresol
[m-クレゾール]

Chemical Name; m-Cresol
Synonym ; 3-Methylphenol
m-Hydroxytoluene
m-Cresylic acid
3-メチルフェノール
m-ヒドロキシトルエン
m-クレゾール酸

Molecular Weight ; 108.14
Melting Point ; 11 - 12 °C [CHCD;Merck]
8 - 10 °C [Aldrich]
Boiling Point ; 202 °C [CHCD;Merck]
80 °C(6mmHg) [CHCD]
203 °C [Aldrich]
Flashing Point ; 86 °C [CHCD;Aldrich;
Merck(c. c.)]

Molecular Formula; C₇H₈O

Chemical Structure



CAS No. ; 108-39-4
MITI No. ; (3)-499 ; (4)-57
ML No. ; 4-(10)-15
Specified Chemical Substances; -

Source of Substance; Tokyo Kasei Kogyo Co.,Ltd.
Lot No. ; FGC01
Purity ; ≥ 98 %

Vehicle ; DMSO

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	(116)	(135)	(10)	(7)	(26)	(32)	(14)	(25)	(7)	(12)
	104	111	8	10	28	30	10	25	8	10
	108	126	6	8	34	34	16	22	5	10
0.0763	(106)	(119)	(7)	(9)	(31)	(32)	(13)	(24)	(7)	(10)
	106	117	8	8	24	37	16	22	11	13
	114	104	5	7	24	40	13	24	9	10
0.305	(110)	(111)	(7)	(8)	(24)	(39)	(15)	(23)	(10)	(12)
	107	117	6	11	21	30	24	15	8	11
	94	112	9	10	23	29	13	22	5	9
1.22	(101)	(115)	(8)	(11)	(22)	(30)	(19)	(19)	(7)	(10)
	111	128	11	3	31	32	20	18	7	8
	114	134	10	13	17	25	14	24	6	9
4.88	(113)	(131)	(11)	(8)	(24)	(29)	(17)	(21)	(7)	(9)
	117	152	14	10	33	23	21	18	9	14
	101	126	7	10	23	43	15	25	2	6
19.5	(109)	(139)	(11)	(10)	(28)	(33)	(18)	(22)	(6)	(10)
	139	123	7	5	23	34	13	17	7	6
	122	123	14	10	25	38	14	25	2	13
78.1	(131)	(130)	(11)	(8)	(24)	(36)	(14)	(21)	(5)	(10)
	93	156	11	14	33	23	16	22	6	10
	98	146	9	8	24	28	14	15	9	13
313	(96)	(151)	(10)	(11)	(29)	(26)	(15)	(19)	(8)	(12)
	0*	124	0*	9	18	28	0*	8	0*	18
	0*	127	0*	10	10	44	0*	15	0*	10
1250	(0*)	(126)	(0*)	(10)	(14)	(36)	(0*)	(12)	(0*)	(14)
	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 (834)	2-AA (1224)	NaN ₃ (364)	2-AA (321)	AF-2 (390)	2-AA (1097)	AF-2 (563)	2-AA (327)	9-AA (752)	2-AA (241)

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+
	(110)	(118)	(9)	(8)	(24)	(32)	(17)	(26)	(6)	(10)
DMSO	120		7				16		1	
	111		8				15		5	
19.5	(116)		(8)				(16)		(3)	
	114		9				24		3	
	108		11				18		1	
39.1	(111)		(10)				(21)		(2)	
	90	134	6	11	23	38	25	29	5	11
	94	111	6	14	29	43	20	22	2	10
78.1	(92)	(123)	(6)	(13)	(26)	(41)	(23)	(26)	(4)	(11)
	96	115	10	14	30	32	14	25	3	9
	101	151	9	9	36	33	15	32	5	7
156	(99)	(133)	(10)	(12)	(33)	(33)	(15)	(29)	(4)	(8)
	133	117	7	3	32	29	23	29	8	9
	101	166	11	14	34	33	13	38	1	11
313	(117)	(142)	(9)	(9)	(33)	(31)	(18)	(34)	(5)	(10)
	92	139	6	13	32	33	16	18	6	7
	99	133	9	10	31	38	15	18	3	7
625	(96)	(136)	(8)	(12)	(32)	(36)	(16)	(18)	(5)	(7)
	0*	96	0*	6	24	36	0*	20	0*	8
	0*	100	0*	7	13	25	0*	24	0*	8
1250	(0*)	(98)	(0*)	(7)	(19)	(31)	(0*)	(22)	(0*)	(8)
		0*		0*	0*	0*		0*		0*
		0*		0*	0*	0*		0*		0*
2500		(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	AF-2 (721)	2-AA (1041)	NaN ₃ (319)	2-AA (297)	AF-2 (257)	2-AA (1128)	AF-2 (511)	2-AA (260)	9-AA (781)	2-AA (171)

Experimental Data - 3

Conc. µg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(246)	(312)	(308)	(319)	(48)	(84)
	228	287	263	319	24	62
	226	295	256	331	54	68
0.0763	(227)	(291)	(260)	(325)	(39)	(65)
	261	276	279	334	40	68
	230	279	255	336	37	69
0.305	(246)	(278)	(267)	(335)	(39)	(69)
	232	299	286	338	46	63
	201	304	268	326	59	91
1.22	(217)	(302)	(277)	(332)	(53)	(77)
	236	294	275	353	38	104
	243	313	309	314	43	68
4.88	(240)	(304)	(292)	(334)	(41)	(86)
	215	291	273	325	52	74
	234	311	272	311	47	59
19.5	(225)	(301)	(273)	(318)	(50)	(67)
	232	306	266	314	39	63
	197	317	243	314	52	57
78.1	(215)	(312)	(255)	(314)	(46)	(60)
	243	332	249	343	34	70
	235	325	229	338	24	56
313	(239)	(329)	(239)	(341)	(29)	(63)
	223*	298	192*	305	26*	46
	194*	288	238*	291	25*	44
1250	(209*)	(293)	(215*)	(298)	(26*)	(45)
	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)

Judgement

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Specific
Mutagenicity

Positive Control	BLM (830)	2-AA (1010)	PA (1539)	2-AA (1161)	AF-2 (1234)	2-AA (926)
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Experimental Data - 4

(B9502-3/3)

Conc. µg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	(249)	(304)	(305)	(367)	(44)	(61)
	213		368		36	
	208		343		40	
19.5	(211)		(356)		(38)	
	227		310		33	
	253		326		53	
39.1	(240)		(318)		(43)	
	250	306	284	368	47	61
	239	329	332	359	55	71
78.1	(245)	(318)	(308)	(364)	(51)	(66)
	243	358	331	347	41	76
	236	331	317	372	45	62
156	(240)	(345)	(324)	(360)	(43)	(69)
	201	340	271	380	25	78
	234	350	301	356	45	67
313	(218)	(345)	(286)	(368)	(35)	(73)
	213	359	259*	343	37	49
	225	338	306*	341	28	63
625	(219)	(349)	(283*)	(342)	(33)	(56)
	183*	312	229*	307	20*	48
	131*	317	229*	354	18*	54
1250	(157*)	(315)	(229*)	(331)	(19*)	(51)
		0*		0*		0*
		0*		0*		0*
2500		(0*)		(0*)		(0*)
		0*		0*		0*
		0*		0*		0*
5000		(0*)		(0*)		(0*)

Judgement

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Specific
Mutagenicity

Positive Control	BLM (840)	2-AA (2309)	PA (2807)	2-AA (1202)	AF-2 (1162)	2-AA (1104)
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