

[臭化メチル]

Chemical Name; Methyl bromide
 Synonym ; Bromomethane
Monobromomethane
 ブロモメタン
 モノブロモメタン

Molecular Weight ; 94.94
 Melting Point ; - 93.7 °C [CHCD]
 - 94 °C [Aldrich]
 - 93.66 °C [Merck]
 Boiling Point ; 4.5 °C [CHCD]
 4 °C [Aldrich]
 3.56 °C [Merck]
 Flashing Point ; - °C
 Molecular Formula; CH₃Br

Chemical Structure



CAS No. ; 74-83-9
 MITI No. ; (2)-39
 ML No. ; 2-(13)-70
 Specified Chemical Substances; -

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
 Lot No. ; GA01
 Purity ; ≥ 99 %

Vehicle ; Filtrated Air
 Exposure Condition; 37 °C , 24 Hr
 Culture Condition ; 37 °C , 24 Hr

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
Air	(135)	(133)	(10)	(13)	(20)	(26)	(17)	(32)	(4)	(8)
	542	488	15	5	34	43	17	37	9	10
	481	463	17	8	44	52	9	30	6	7
0.05	(512)	(476)	(16)	(7)	(39)	(48)	(13)	(34)	(8)	(9)
	876	953	52	105	60	59	18	22	9	10
	892	999	53	101	75	87	20	32	10	20
0.1	(884)	(976)	(53)	(103)	(68)	(73)	(19)	(27)	(10)	(15)
	1087	1273	318	314	461	332	13	11	8	6
	948	1191	359	323	424	279	9	21	2	6
0.5	(1018)	(1232)	(339)	(319)	(443)	(306)	(11)	(16)	(5)	(6)
	0*	2*	17*	10*	1*	8*	0*	1*	0*	1*
	0*	2*	15*	9*	8*	17*	0*	3*	1*	5*
1	(0*)	(2*)	(16*)	(10*)	(5*)	(13*)	(0*)	(2*)	(1*)	(3*)
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
5	(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*
10	(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*
50	(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*
	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	+	+	+	+	+	+	-	-	-	-
Positive Minimum Concentration	0.05%	0.05%	0.1%	0.1%	0.1%	0.1%				
Positive Control	AF-2 (819)	2-AA (1620)	NaN ₃ (458)	2-AA (364)	AF-2 (190)	2-AA (1535)	AF-2 (806)	2-AA (444)	9-AA (736)	2-AA (272)

Mutagenicity in Bacterial Test ; **Positive**

IARC Evaluation ; not yet cited

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
Air	(134)	(134)	(9)	(11)	(24)	(24)	(17)	(25)	(8)	(8)
	116	148	10	13	22	25	17	32	3	3
0.001	(132)	(146)	(10)	(13)	(22)	(28)	(14)	(30)	(4)	(5)
	148	144	9	13	21	29	11	28	5	6
0.005	(159)	(156)	(8)	(10)	(19)	(27)	(13)	(20)	(8)	(9)
	176	155	8	11	17	24	17	24	9	8
0.01	(201)	(129)	(9)	(10)	(24)	(18)	(12)	(22)	(7)	(13)
	142	157	7	8	20	29	8	15	6	9
0.05	(526)	(388)	(10)	(10)	(36)	(32)	(14)	(23)	(7)	(6)
	211	130	8	10	31	22	15	23	5	13
0.1	(641)	(418)	(17)	(15)	(45)	(32)	(15)	(25)	(7)	(10)
	191	128	10	9	17	14	8	21	9	13
0.5	(737)	(1155)	(339)	(417)	(372)	(359)	(10)	(14)	(5)	(6)
	524	414	9	8	36	31	14	26	6	7
1	(381*)	(560*)	(317*)	(164*)	(9*)	(406*)	(5*)	(5*)	(5*)	(11*)
	528	361	11	11	36	33	13	20	7	5
	632	422	20	16	38	31	14	25	8	9
	649	414	14	14	51	33	16	24	6	11
	782	1149	344	511	355	380	9	16	7	3
	691	1160	334	523	389	338	11	11	3	8
	376*	576*	305*	170*	7*	401*	8*	5*	5*	13*
	385*	543*	329*	157*	11*	410*	2*	5*	5*	9*
Judgement	+	+	+	+	+	+	-	-	-	-
Positive Minimum Concentration	0.05%	0.05%	0.5%	0.5%	0.5%	0.5%				
Positive Control	AF-2 (1276)	2-AA (1191)	NaN ₃ (505)	2-AA (398)	AF-2 (183)	2-AA (1462)	AF-2 (751)	2-AA (359)	9-AA (606)	2-AA (236)

Conc. %	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
Air	(117)	(129)	(8)	(15)	(25)	(33)	(17)	(30)	(7)	(9)
	115	120	8	7	29	44				
0.005	(118)	(124)	(7)	(11)	(27)	(40)				
	127	117	6	10	31	30	21	20	3	13
0.01	(121)	(123)	(7)	(8)	(28)	(37)	(19)	(25)	(3)	(10)
	114	128	7	6	24	43	17	29	3	6
	122	139	9	6	24	39	11	26	6	6
0.02	(122)	(128)	(9)	(7)	(27)	(41)	(18)	(27)	(7)	(5)
	119	150	10	16	30	39	17	33	8	8
0.05	(122)	(130)	(13)	(12)	(34)	(34)	(18)	(29)	(7)	(7)
	124	130	15	8	37	29	18	25	5	6
	159	494	8	13	25	56	9	36	6	5
0.1	(148)	(532)	(9)	(13)	(27)	(57)	(17)	(29)	(6)	(5)
	136	570	10	13	29	57	24	21	5	5
	788	886	33	113	77	81	11	28	6	6
0.2	(785)	(872)	(31)	(105)	(68)	(77)	(13)	(30)	(7)	(7)
	782	857	29	97	59	72	15	32	8	7
	943	968	170	372	359	434	11	23	7	9
0.5	(960)	(952)	(179)	(353)	(350)	(434)	(17)	(22)	(7)	(8)
	977	938	187	334	340	433	22	21	6	7
							8*	11*	3*	11*
1							9*	18*	2*	2*
							(9*)	(15*)	(3*)	(7*)
Judgement	+	+	+	+	+	+	-	-	-	-
Positive Minimum Concentration	0.2%	0.1%	0.2%	0.2%	0.2%	0.2%				
Positive Control	AF-2 (696)	2-AA (1487)	NaN ₃ (500)	2-AA (389)	AF-2 (169)	2-AA (1413)	AF-2 (772)	2-AA (404)	9-AA (978)	2-AA (237)