

Chemical Name	: <u>1-Bromopropane</u>
Synonym	: <u>n-Propyl bromid</u> 臭化n-プロピル 臭化プロピル
Molecular Weight	: 122.99
Melting Point	: -110°C[Aldrich]
Boiling Point	: 71°C[Aldrich]
Flashing Point	: >110°C[Aldrich]
Molecular Formula	: C ₃ H ₇ Br
Chemical Structure	 <chem>CH3CH2CH2Br</chem>
CAS No.	: 106-94-5
MITI No.	: (2)-73
ML No.	: -
Specified Chemical Substances	: -
Source of Substance	: Tokyo Kasei Kogyo Co., Ltd.
Lot No.	: FGA01
Purity	: 99.6%
Vehicle	: DMSO

Mutagenicity in Bacterial Test ; Negative

IARC Evaluation ; not yet cited

Conc. μ g/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	(141)	(136)	(7)	(10)	(20)	(23)	(16)	(21)	(4)	(7)
	126	138	6	13	20	17	22	22	6	9
2.44	(132)	(132)	(6)	(10)	(18)	(21)	(19)	(23)	(4)	(7)
	130	126	10	13	22	23	17	11	5	10
9.77	(127)	(131)	(6)	(11)	(24)	(22)	(19)	(18)	(4)	(9)
	137	121	5	3	18	22	13	14	6	10
39.1	(155)	(132)	(6)	(7)	(19)	(20)	(15)	(19)	(5)	(9)
	122	133	5	10	20	28	15	20	3	3
156	(133)	(131)	(9)	(10)	(19)	(29)	(15)	(20)	(5)	(5)
	143	128	13	9	17	29	14	20	6	7
625	(134)	(117)	(9)	(9)	(17)	(25)	(16)	(25)	(4)	(7)
	122	112	10	8	18	34	17	26	3	8
	145	121	8	9	15	15	15	24	5	6
2500	(134)	(117 *)	(5)	(11 *)	(22)	(37)	(14)	(17 *)	(5)	(7 *)
	134	117 *	5	8 *	20	37	14	21 *	5	6 *
10000	(0 *)	(0 *)	(0 *)	(0 *)	(15 *)	(21 *)	(11 *)	(0 *)	(0 *)	(0 *)
	0 *	0 *	0 *	0 *	16 *	18 *	13 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	13 *	23 *	8 *	0 *	0 *	0 *
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 (688)	2-AA (1208)	NaN ₃ (251)	2-AA (225)	AF-2 (231)	2-AA (851)	AF-2 (394)	2-AA (404)	9-AA (555)	2-AA (158)

* Growth inhibition was observed.

Experimental Data-2

(B9602-2/3)

Conc. μ g/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 _{uvrA}		TA98		TA1537	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
	(129)	(133)	(7)	(7)	(19)	(19)	(14)	(25)	(6)	(7)
		145		8				24		3
78 .1		152 (149)		8 (8)				26 (25)		13 (8)
		133		6				31		6
156		130 (132)		5 (6)				22 (27)		10 (8)
	119	146	7	5	21	14	16	21	5	11
313	141 (130)	155 (151)	11 (9)	7 (6)	21 (21)	21 (18)	10 (13)	24 (23)	5 (5)	8 (10)
	116	139	3	7	14	29	13	22	2	8
625	144 (130)	158 (149)	7 (5)	6 (7)	17 (16)	28 (29)	13 (13)	26 (24)	3 (3)	9 (9)
	137	128	7	8	15	21	6	21	3	9
1250	108 (123)	131 (130)	3 (5)	8 (8)	9 (12)	25 (23)	14 (10)	22 (22)	5 (4)	6 (8)
	126	107 *	5	9 *	18	25	10	21 *	11	8 *
2500	122 (124)	114 * (111 *)	10 (8)	5 * (7 *)	21 (20)	23 (24)	17 (14)	16 * (19 *)	5 (8)	11 * (10 *)
	106 *		8 *		10 *	25	9 *		3 *	
5000	86 * (96 *)		7 * (8 *)		14 * (12 *)	25 (25)	10 * (10 *)		3 * (3 *)	
	0 *		0 *		23 *	30 *	13 *		0 *	
10000	0 * (0 *)		0 * (0 *)		9 * (16 *)	28 * (29 *)	10 * (12 *)		0 * (0 *)	
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 (786)	2-AA (1230)	NaN ₃ (258)	2-AA (221)	AF-2 (329)	2-AA (847)	AF-2 (291)	2-AA (405)	9-AA (495)	2-AA (173)

Experimental Data-3

Conc. μ g/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+
	(329)	(378)	(319)	(377)	(62)	(87)
2 .44	323	396	331	407	54	67
	293	359	368	389	59	79
	(308)	(378)	(350)	(398)	(57)	(73)
9 .77	331	404	319	368	51	91
	294	379	323	335	62	76
	(313)	(392)	(321)	(352)	(57)	(84)
39 .1	344	360	343	340	51	114
	303	394	307	341	59	87
	(324)	(377)	(325)	(341)	(55)	(101)
156	328	404	336	387	67	87
	349	387	334	432	82	90
	(339)	(396)	(335)	(410)	(75)	(89)
625	328	396	312	379	68	78
	304	402	319	374	59	83
	(316)	(399)	(316)	(377)	(64)	(81)
2500	325	421	325	380	69	108
	340	408	346	346	69	115
	(333)	(415)	(336)	(363)	(69)	(112)
10000	0 *	183 *	0 *	240 *	39 *	30 *
	0 *	206 *	0 *	216 *	41 *	43 *
	(0 *)	(195 *)	(0 *)	(228 *)	(40 *)	(37 *)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM (816)	2-AA (1473)	PA (2092)	2-AA (1387)	AF-2 (1882)	2-AA (1110)

Experimental Data-4

(B9602-3/3)

Conc. μ g/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2uvrA/pKM101	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+
	(308)	(364)	(314)	(376)	(48)	(81)
313	265	374	325	376	46	66
	314	383	353	335	51	52
	(290)	(379)	(339)	(356)	(49)	(59)
625	319	354	309	383	51	71
	305	417	330	338	51	72
	(312)	(386)	(320)	(361)	(51)	(72)
1250	346	372	297	332	47	67
	304	394	298	373	54	93
	(325)	(383)	(298)	(353)	(51)	(80)
2500	310	356	334	368	53	89
	326	365	310	380	49	79
	(318)	(361)	(322)	(374)	(51)	(84)
5000	335	377	330	347	59	121
	287	359	323	322	54	93
	(311)	(368)	(327)	(335)	(57)	(107)
10000	0 *	241 *	0 *	230 *	15 *	41 *
	0 *	188 *	0 *	199 *	28 *	17 *
	(0 *)	(215 *)	(0 *)	(215 *)	(22 *)	(29 *)
Judgement	—	—	—	—	—	—
Specific Mutagenicity						
Positive Control	BLM (631)	2-AA (1314)	PA (1684)	2-AA (1418)	AF-2 (1690)	2-AA (837)