Chemical Name ; 1-Bromopropane

Synonym ; *n*-Propyl bromid
臭化*n*-プロピル
臭化プロピル

Molecular Weight ; 122.99
Melting Point ; -110℃[Aldrich]
Boiling Point ; 71℃[Aldrich]
Flashing Point ; >110℃[Aldrich]
Molecular Formula ; C_3H_7Br

Chemical Structure

$CH_3CH_2CH_2Br$

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. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		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
	138	126	5	6	15	25	15	23	2	5
2 .44	(132)	(132)	(6)	(10)	(18)	(21)	(19)	(23)	(4)	(7)
	130	126	10	13	22	23	17	11	5	10
	124	135	2	8	26	20	21	24	2	7
9 .77	(127)	(131)	(6)	(11)	(24)	(22)	(19)	(18)	(4)	(9)
	137	121	5	3	18	22	13	14	6	10
	172	142	6	10	20	17	17	24	3	8
39 .1	(155)	(132)	(6)	(7)	(19)	(20)	(15)	(19)	(5)	(9)
	122	133	5	10	20	28	15	20	3	3
	143	128	13	9	17	29	14	20	6	7
156	(133)	(131)	(9)	(10)	(19)	(29)	(15)	(20)	(5)	(5)
	122	112	10	8	18	34	17	26	3	8
	145	121	8	9	15	15	15	24	5	6
625	(134)	(117)	(9)	(9)	(17)	(25)	(16)	(25)	(4)	(7)
	134	117 *	5	13 *	24	36	13	13 *	5	7 *
	134	116 *	5	8 *	20	37	14	21 *	5	6 *
2500	(134)	(117 *)	(5)	(11 *)	(22)	(37)	(14)	(17 *)	(5)	(7 *)
	0 *	0 *	0 *	0 *	16 *	18 *	13 *	0 *	0 *	0 *
	0 *	0 *	0 *	0 *	13 *	23 *	8 *	0 *	0 *	0 *
10000	(0 *)	(0 *)	(0 *)	(0 *)	(15 *)	(21 *)	(11 *)	(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 inhibitation was observed.

Conc. μ g/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(129)	(133)	(7)	(7)	(19)	(19)	(14)	(25)	(6)	(7)
		145		8				24		3
		152		8				26		13
78 .1		(149)		(8)				(25)		(8)
		133		6				31		6
		130		5				22		10
156		(132)		(6)				(27)		(8)
	119	146	7	5	21	14	16	21	5	11
	141	155	11	7	21	21	10	24	5	8
313	(130)	(151)	(9)	(6)	(21)	(18)	(13)	(23)	(5)	(10)
	116	139	3	7	14	29	13	22	2	8
	144	158	7	6	17	28	13	26	3	9
625	(130)	(149)	(5)	(7)	(16)	(29)	(13)	(24)	(3)	(9)
	137	128	7	8	15	21	6	21	3	9
	108	131	3	8	9	25	14	22	5	6
1250	(123)	(130)	(5)	(8)	(12)	(23)	(10)	(22)	(4)	(8)
	126	107 *	5	9 *	18	25	10	21 *	11	8 *
	122	114 *	10	5 *	21	23	17	16 *	5	11 *
2500	(124)	(111 *)	(8)	(7 *)	(20)	(24)	(14)	(19 *)	(8)	(10 *)
	106 *		8 *		10 *	25	9 *		3 *	
	86 *		7 *		14 *	25	10 *		3 *	
5000	(96 *)		(8 *)		(12 *)	(25)	(10 *)		(3 *)	
	0 *		0 *		23 *	30 *	13 *		0 *	
	0 *		0 *		9 *	28 *	10 *		0 *	
10000	(0 *)		(0 *)		(16 *)	(29 *)	(12 *)		(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. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2*uvr*A/pKM101	
	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(329)	(378)	(319)	(377)	(62)	(87)
	323	396	331	407	54	67
	293	359	368	389	59	79
2 .44	(308)	(378)	(350)	(398)	(57)	(73)
	331	404	319	368	51	91
	294	379	323	335	62	76
9 .77	(313)	(392)	(321)	(352)	(57)	(84)
	344	360	343	340	51	114
	303	394	307	341	59	87
39 .1	(324)	(377)	(325)	(341)	(55)	(101)
	328	404	336	387	67	87
	349	387	334	432	82	90
156	(339)	(396)	(335)	(410)	(75)	(89)
	328	396	312	379	68	78
	304	402	319	374	59	83
625	(316)	(399)	(316)	(377)	(64)	(81)
	325	421	325	380	69	108
	340	408	346	346	69	115
2500	(333)	(415)	(336)	(363)	(69)	(112)
	0 *	183 *	0 *	240 *	39 *	30 *
	0 *	206 *	0 *	216 *	41 *	43 *
10000	(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. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WP2*uvr*A/pKM101	
	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(308)	(364)	(314)	(376)	(48)	(81)
	265	374	325	376	46	66
	314	383	353	335	51	52
313	(290)	(379)	(339)	(356)	(49)	(59)
	319	354	309	383	51	71
	305	417	330	338	51	72
625	(312)	(386)	(320)	(361)	(51)	(72)
	346	372	297	332	47	67
	304	394	298	373	54	93
1250	(325)	(383)	(298)	(353)	(51)	(80)
	310	356	334	368	53	89
	326	365	310	380	49	79
2500	(318)	(361)	(322)	(374)	(51)	(84)
	335	377	330	347	59	121
	287	359	323	322	54	93
5000	(311)	(368)	(327)	(335)	(57)	(107)
	0 *	241 *	0 *	230 *	15 *	41 *
	0 *	188 *	0 *	199 *	28 *	17 *
10000	(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)