

Bromoacetic acid (ブロ酢酸)

Chemical Name: Bromoacetic acid
 Synonym: Acetic acid, bromo-
 Molecular weight: 138.95
 Melting point: 49-51°C
 Boiling point: 208 °C

Chemical Structure

BrCH₂COOH

CAS No : 79-08-3
 MITI No: (2)-2634
 Source of Substance: Wako Pure Chem. Ind., Ltd.
 Lot.No. : CTM1298
 Purity: ≥ 98 %
 Vehicle: H₂O

Mutagenicity
 in Bacterial Test : Positive

IARC Overall Evaluation : not yet cited

Con. μg/ plate	Experimental Data									
	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
H ₂ O	(159)	(170)	(11)	(11)	(51)	(43)	(33)	(33)	(11)	(21)
	155	141	15	14	34	36	29	33	8	18
	174	158	8	14	36	39	32	32	8	15
9.77	(165)	(150)	(12)	(14)	(35)	(38)	(31)	(33)	(8)	(17)
	167	153	15	14	48	55	25	41	15	21
	174	166	13	10	32	49	34	46	7	11
19.5	(171)	(160)	(14)	(12)	(40)	(52)	(30)	(44)	(11)	(16)
	276	181	8	13	41	57	37	39	7	21
	243	193	14	15	39	36	39	44	14	18
39.1	(260)	(187)	(11)	(14)	(40)	(47)	(38)	(42)	(11)	(20)
	305	185	9	14	40	47	37	38	16	14
	241	192	10	9	44	37	41	36	11	15
78.1	(273)	(189)	(10)	(12)	(42)	(42)	(39)	(37)	(14)	(15)
	285	229	15	10	48	44	18*	43	5*	21
	281	228	10	17	37	53	11*	24	3*	13
156	(283)	(229)	(13)	(14)	(43)	(49)	(15*)	(34)	(4*)	(17)
	406	271	11	11	30	48	0*	32*	0*	7*
	419	236	6	8	47	49	0*	29*	0*	10*
313	(413)	(254)	(9)	(10)	(39)	(49)	(0*)	(31*)	(0*)	(9*)
	0*	56*	0*	0*	45*	45	0*	0*	0*	0*
	0*	34*	0*	0*	47*	43	0*	0*	0*	0*
625	(0*)	(45*)	(0*)	(0*)	(46*)	(44)	(0*)	(0*)	(0*)	(0*)
	0*	0*	0*	0*	0*	30*	0*	0*	0*	0*
	0*	0*	0*	0*	0*	32*	0*	0*	0*	0*
1250	(0*)	(0*)	(0*)	(0*)	(0*)	(31*)	(0*)	(0*)	(0*)	(0*)
2500	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
5000	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)	(0*)
Judgement	+		-		-		-		-	
Specific Mutagenicity	812									
Positive	AF2	2AA	NaN ₃	2AA	AF2	2AA 20	AF2	2AA	9AA	2AA
Control	(673)	(992)	(437)	(243)	(240)	(1480)	(412)	(443)	(473)	(179)

Experimental Data									
Con. μg/ plate	Number of Revertants/plate								
	Base-substitution				Frame-shift				
	TA1535		WP2uvrA		TA98		TA1537		
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	
H ₂ O	(13)	(15)	(31)	(41)	(29)	(37)	(8)	(9)	
					24		9		
					25		8		
3.91					(25)		(9)		
					21	29	10	13	
					20	33	10	9	
7.81					(21)	(31)	(10)	(11)	
	8	10	38		21	36	13	10	
	13	9	36		23	34	7	7	
15.6	(11)	(10)	(37)		(22)	(35)	(10)	(9)	
	15	14	33	38	23	29	8	9	
	13	11	39	41	25	34	7	13	
31.3	(14)	(13)	(36)	(40)	(24)	(32)	(8)	(11)	
	9	10	39	48	21	25	7	8	
	15	14	32	38	26	26	10	8	
62.5	(12)	(12)	(36)	(43)	(24)	(26)	(9)	(8)	
	14	15	37	54	25*	31	7	7	
	10	13	29	40	24*	28	7	6	
125	(12)	(14)	(33)	(47)	(25*)	(30)	(7)	(7)	
	11	16	41	33	20*	34	2*	7	
	10	10	32	38	13*	25	5*	8	
250	(11)	(13)	(37)	(36)	(17*)	(30)	(4*)	(8)	
	9	10	36	39		28*		6*	
	8	11	40	32		23*		3*	
500	(9)	(11)	(38)	(36)		(26*)		(5*)	
	3*	1*	34*	45					
	3*	2*	32*	48					
1000	(3*)	(2*)	(33*)	(47)					
			39*						
			48*						
5000			(44*)						

Judgement	Specific Mutagenicity								
	NaN ₃	2AA	AF2	2AA 20	AF2	2AA	9AA	2AA	
Positive	(247)	(231)	(173)	(1526)	(368)	(428)	(291)	(193)	
Control									

Experimental Data		
Con. μg/ plate	Number of Revertants/plate	
	Base-substitution	
	TA100	
	S9-	S9+
H ₂ O	(188)	(188)
	188	194
	207	207
60	(198)	(201)
	249	193
	233	201
80	(241)	(197)
	199	221
	255	220
100	(227)	(221)
	274	233
	271	243
200	(273)	(238)
	316	316
	318	298
300	(317)	(307)
	364	301
	355	324
400	(360)	(313)
	514	295
	533	300
500	(524)	(298)
	407*	273*
	290*	284*
600	(349*)	(279*)
	0*	214*
	0*	158*
800	(0*)	(186*)

	+	-
Control	672	
	AF2	2AA
	(703)	(979)