2-Aminoethanethiol・HCl(2-アミノエタンチオール=塩酸塩)

Chemical Name ; 2-Aminoethanethiol・HCl
Synoym ; 2-Mercaptethylamine hydrochloride
Cysteamine hydrochloride

Molecular Weight ; 113.60
Melting Point ; 70.2-70.7℃[CHCD]
Boiling Point ; −
Flashing Point ; −
Molecular Formular; C_2H_8ClNS

Chemical Structure

$HS\text{-}CH_2\text{-}CH_2\text{-}NH_2 \cdot HCl$

CAS No. ; 156-57-0
MITI No. ; −
ML No. ; −
Specified Chemical Substances; −

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
Lot No. ; GHO1-JG
Purity ; 98%

Vehicle ; Distilled H_2O

Mutagenicity in Bacterial Test; Positive

IARC Evaluation ; not yet cited

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvrA*/pKM101		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
H_2O	(107)	(134)	(10)	(10)	(64)	(102)	(17)	(26)	(10)	(13)
1.22	109 117 (113)	148 136 (142)	7 9 (8)	10 13 (12)	61 69 (65)	86 102 (94)	18 13 (16)	18 25 (22)	6 6 (6)	13 15 (14)
4.88	97 121 (109)	128 144 (136)	11 10 (11)	5 6 (6)	78 70 (74)	121 102 (112)	18 18 (18)	21 23 (22)	10 9 (10)	16 15 (16)
19.5	139 112 (126)	139 107 (123)	9 10 (10)	3 10 (7)	70 62 (66)	101 79 (90)	18 15 (17)	30 28 (29)	10 11 (11)	7 11 (9)
78.1	79 98 (89)	143 128 (136)	10 6 (8)	7 10 (9)	55 72 (64)	104 93 (99)	20 20 (20)	22 33 (28)	10 9 (10)	17 16 (17)
313	112 100 (106)	164 122 (143)	8 14 (11)	15 10 (13)	68 60 (64)	84 75 (80)	15 23 (19)	33 20 (27)	7 9 (8)	3 8 (6)
1250	133 87 (110)	129 136 (133)	6 11 (9)	11 9 (10)	61 69 (65)	70 72 (71)	16 11 (14)	26 22 (24)	10 11 (11)	7 8 (8)
5000	113 107 (110)	135 119 (127)	5 6 (6)	15 7 (11)	104 128 (116)	96 82 (89)	17 23 (20)	15 30 (23)	7 11 (9)	7 8 (8)
Judgement	−	−	−	−	−	−	−	−	−	−
Specific Mutagenicity										
Positive Control	AF-2 (591)	2-AA (1203)	NaN_3 (419)	2-AA (296)	AF-2 (838)	2-AA (729)	AF-2 (529)	2-AA (504)	9-AA (353)	2-AA (212)

Experimental Data-2

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvrA*/pKM101		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
H_2O	(122)	(148)	(10)	(8)	(69)	(97)	(19)	(22)	(10)	(14)
	123	158	8	8	75	96	11	28	9	16
	116	155	7	8	64	98	16	28	14	7
156	(120)	(157)	(8)	(8)	(70)	(97)	(14)	(28)	(12)	(12)
	115	144	7	6	75	84	15	29	3	8
	120	152	13	14	54	112	15	37	11	13
313	(118)	(148)	(10)	(10)	(65)	(98)	(15)	(33)	(7)	(11)
	138	137	7	11	62	84	22	24	8	6
	115	142	8	8	59	82	25	21	11	11
625	(127)	(140)	(8)	(10)	(61)	(83)	(24)	(23)	(10)	(9)
	120	138	7	6	57	74	21	26	9	13
	107	129	16	11	69	91	10	26	6	11
1250	(114)	(134)	(12)	(9)	(63)	(83)	(16)	(26)	(8)	(12)
	123	131	5	7	75	78	15	16	9	15
	113	135	5	10	54	84	14	23	10	15
2500	(118)	(133)	(5)	(9)	(65)	(81)	(15)	(20)	(10)	(15)
	144	124	9	5	146	54	22	16	14	9
	129	116	5	11	153	66	18	15	11	16
5000	(137)	(120)	(7)	(8)	(150)	(60)	(20)	(16)	(13)	(13)
Judgement	−	−	−	−	+	−	−	−	−	−
Specific Mutagenicity					16.2					
Positive Control	AF-2 (693)	2-AA (1379)	NaN_3 (398)	2-AA (265)	AF-2 (961)	2-AA (859)	AF-2 (495)	2-AA (489)	9-AA (434)	2-AA (204)

Experimental Data-3 (B9901-2/2)

Conc. μg/plate	Number of Revertants/plate	
	Base-substitution	
	WP2*uvrA*/pKM101	
	S9-	S9+
H_2O	(57)	(100)
	49	84
	60	61
156	(55)	(73)
	72	86
	59	71
313	(66)	(79)
	49	75
	64	72
625	(57)	(74)
	61	76
	57	68
1250	(59)	(72)
	56	57
	56	67
2500	(56)	(62)
	126	70
	126	71
5000	(126)	(71)
Judgement	+	−
Specific Mutagenicity	13.8	
Positive Control	AF-2 (1096)	2-AA (915)