p-Anisidine (p-アニシジン)

Chemical Name: p-Anisidine
Synonym: p-Methoxyaniline
Benzenamine, 4-methyl-
Molecular weight: 123.16
Melting point: 57~60℃
Boiling point: 240~246℃

Chemical Structure

CAS No : 104-94-9
MITI No: (3)-682
Source of Substance:Tokyo Kasei Kogyo Co.Ltd
Lot.No.: FBY01
Purity: 99 %
Vehicle: DMSO

Mutagenicity
in Bacterial Test : Positive

IARC Evaluation : G3

Experimental Data

Con. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(141)	(143)	(12)	(11)	(20)	(27)	(13)	(16)	(7)	(10)
	116	168	4	15	18	27	15	20	5	13
	156	147	12	16	24	32	14	22	7	8
0.0763	(136)	(158)	(8)	(16)	(21)	(30)	(15)	(21)	(6)	(11)
	141	136	8	17	22	32	10	17	8	13
	139	141	9	13	22	25	16	18	10	12
0.305	(140)	(139)	(9)	(15)	(22)	(29)	(13)	(18)	(9)	(13)
	143	147	6	10	23	21	14	21	8	8
	149	154	5	10	23	22	12	17	6	9
1.22	(146)	(151)	(6)	(10)	(23)	(22)	(13)	(19)	(7)	(9)
	129	125	7	10	24	28	12	20	9	8
	138	145	9	18	32	22	14	8	7	7
4.88	(134)	(135)	(8)	(14)	(28)	(25)	(13)	(14)	(8)	(8)
	126	146	9	20	29	29	10	16	5	14
	131	180	6	9	27	29	12	16	9	14
19.5	(129)	(163)	(8)	(15)	(28)	(29)	(11)	(16)	(7)	(14)
	141	184	5	9	23	32	8	14	9	10
	154	183	12	12	32	28	8	17	9	13
78.1	(148)	(184)	(9)	(11)	(28)	(30)	(8)	(16)	(9)	(12)
	130	158	9	16	28	30	7	20	5	16
	170	172	5	10	28	35	12	18	7	10
313	(150)	(165)	(7)	(13)	(28)	(33)	(10)	(19)	(6)	(13)
	187	214	7	12	32	29	9	22	7	12
	154	154	12	13	25	37	10	23	7	10
1250	(171)	(184)	(10)	(13)	(29)	(33)	(10)	(23)	(7)	(11)
	147	169	14	20	43	35	18	23	9	8
	156	158	15	15	37	43	23	22	7	12
5000	(152)	(164)	(15)	(18)	(40)	(39)	(21)	(23)	(8)	(10)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific mutagenicity										
Positive Control	AF2 (1047)	2AA (868)	NaN_3 (250)	2AA (326)	AF2 (168)	2AA (952)	AF2 (405)	2AA (318)	9AA (224)	2AA (194)

Experimental Data

Con. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2uvrA		TA98		TA1537	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(103)	(96)	(12)	(12)	(19)	(25)	(9)	(14)	(8)	(12)
	133	108	13	15	24	25	5	6	7	9
	80	136	6	12	15	31	12	18	7	12
156	(107)	(122)	(10)	(14)	(20)	(28)	(9)	(12)	(7)	(11)
	96	129	7	16	24	31	12	9	8	20
	103	170	9	14	24	50	7	16	7	7
313	(100)	(150)	(8)	(15)	(24)	(41)	(10)	(13)	(8)	(14)
	129	119	13	20	18	21	5	14	7	12
	133	166	7	17	18	30	10	12	8	7
625	(131)	(143)	(10)	(19)	(18)	(26)	(8)	(13)	(8)	(10)
	168	155	25	8	7	31	9	21	7	6
	171	177	9	15	29	29	6	18	8	9
1250	(170)	(166)	(17)	(12)	(18)	(30)	(8)	(20)	(8)	(8)
	158	146	9	9	24	39	12	14	8	7
	143	140	7	18	32	36	6	16	10	9
2500	(151)	(143)	(8)	(14)	(28)	(38)	(9)	(15)	(9)	(8)
	141	106	6	9	27	37	7	14	7	3
	127	106	9	8	30	27	9	15	7	12
5000	(134)	(106)	(8)	(9)	(29)	(32)	(8)	(15)	(7)	(8)
Judgement	—	—	—	—	—	—	—	—	—	—
Specific mutagenicity										
Positive Control	AF2	2AA	NaN_3	2AA	AF2	2AA	AF2	2AA	9AA	2AA
	(655)	(685)	(214)	(325)	(179)	(933)	(307)	(241)	(213)	(173)

Experimental Data

Con. μg/plate	Number of Revertants/plate Base-substitution WP2uvrA S9-	S9+
DSMO	(27)	(24)
	29	32
	24	30
156	(27)	(31)
	21	30
	32	30
313	(27)	(30)
	18	31
	21	29
625	(20)	(30)
	27	38
	17	51
1250	(22)	(45)
	31	43
	38	43
2500	(35)	(43)
	38	53
	40	61
5000	(39)	(57)
Judgement	−	+
Specific mutagenicity		6.60
Positive Control	AF2 (327)	2AA (908)

Experimental Data

Con. μg/plate	Number of Revertants/plate Base-substitution WP2uvrA S9-	S9+
DSMO	(25)	(32)
	17	20
	16	34
156	(17)	(27)
	30	37
	22	22
313	(26)	(30)
	30	24
	16	27
625	(23)	(26)
	25	32
	22	29
1250	(24)	(31)
	23	38
	20	44
2500	(22)	(41)
	38	45
	31	31
5000	(35)	(38)
Judgement	−	−
Positive Control	AF2 (229)	2AA (736)

Experimental Data

Con. μg/plate	Number of Revertants/plate Base-substitution					
	TA102		TA104		WPuvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(238)	(281)	(244)	(325)	(108)	(158)
	236	303	220	302	95	139
	224	269	212	319	101	148
0.0763	(230)	(286)	(216)	(311)	(98)	(144)
	253	281	244	365	83	127
	232	243	236	334	99	158
0.305	(243)	(262)	(240)	(350)	(91)	(143)
	236	264	244	354	97	128
	260	283	267	333	119	157
1.22	(248)	(274)	(256)	(344)	(108)	(143)
	249	240	237	301	99	121
	220	252	237	335	94	162
4.88	(235)	(246)	(237)	(318)	(97)	(142)
	218	306	249	400	101	170
	254	283	230	338	90	163
19.5	(236)	(295)	(240)	(369)	(96)	(167)
	228	310	259	377	82	173
	215	296	289	378	99	172
78.1	(222)	(303)	(274)	(378)	(91)	(173)
	244	262	275	424	110	190
	224	282	229	380	101	169
313	(234)	(272)	(252)	(402)	(106)	(180)
	242	264	303	320	156	187
	254	265	297	372	105	202
1250	(248)	(265)	(300)	(346)	(131)	(195)
	251	302	335	395	207	247
	265	314	357	418	194	268
5000	(258)	(308)	(346)	(407)	(201)	(258)
Judgement	—	—	—	—	—	—
Specific mutagenicity						
Positive Control	BLM	2AA	PA	2AA	AF2	2AA
	(571)	(1161)	(3655)	(1641)	(2538)	(615)

Experimental Data

Con. μg/plate	Number of Revertants/plate					
	Base-substitution					
	TA102		TA104		WPuvrA/pKM101	
	S9-	S9+	S9-	S9+	S9-	S9+
DSMO	(324)	(318)	(282)	(343)	(114)	(172)
	304	362	306	421	128	201
	292	363	311	436	113	193
156	(298)	(363)	(309)	(429)	(121)	(197)
	304	342	320	422	149	208
	313	375	329	423	133	209
313	(309)	(359)	(325)	(423)	(141)	(209)
	287	362	372	437	150	282
	284	378	303	452	170	227
625	(286)	(370)	(338)	(445)	(160)	(255)
	327	402	375	445	166	227
	307	397	349	461	166	249
1250	(317)	(400)	(362)	(453)	(166)	(238)
	349	412	365	453	181	288
	331	368	383	462	205	257
2500	(340)	(390)	(374)	(458)	(193)	(273)
	368	468	387	489	232	290
	388	437	355	452	225	284
5000	(378)	(453)	(371)	(471)	(229)	(287)
Judgement	−	−	−	−	+	−
Specific mutagenicity					23.0	
Positive Control	BLM	2AA	PA	2AA	AF2	2AA
	(872)	(1443)	(2625)	(1579)	(2488)	(841)

Experimental Data

Con. μg/plate	Number of Revertants/plate Base-substitution WP2uvrA/pKM101 S9-	S9+
DSMO	(99)	(154)
	143	178
	113	150
156	(128)	(164)
	129	188
	150	172
313	(140)	(180)
	141	202
	140	178
625	(141)	(190)
	136	224
	127	221
1250	(132)	(223)
	185	247
	157	250
2500	(171)	(249)
	195	296
	220	284
5000	(208)	(290)
Judgement	+	−
Specific mutagenicity	21.8	
Positive Control	AF2 (2042)	2AA (784)