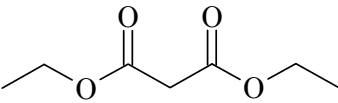


Experimental Data-1

(B0404-1/2)

Diethyl malonate (マロン酸ジエチル)

Chemical Name	: <u>Diethyl malonate</u>
Synonym	: <u>Malonic acid, diethyl ester</u> <u>Propanedioic acid, diethyl ester</u> <u>Diethyl propanedioate</u>
Molecular Weight	: 160.17
Melting Point	: -50 °C[Merck]
Boiling Point	: 198.9°C[CHCD]
Flashing Point	: 100 °C[Aldrich]
Molecular Formular	: C ₇ H ₁₂ O ₄
Chemical Structure:	
CAS No.	: 105-53-3
MITI No.	: (2)-913
ML No.	: -
Specified Chemical Substances:	-
Source of Substance:	Wako Pure Chemical Industries Ltd.
Lot No.	: PKN4186
Purity	: 99.9%
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		WP2uvrA/pKM101		TA98		TA1537	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
		(108)	(115)	(10)	(10)	(82)	(102)	(16)	(23)	(6)
1.22	93	129	9	10	70	100	8	33	10	8
	(95)	(126)	(9)	(11)	(79)	(103)	(9)	(23)	(8)	(8)
4.88	108	119	8	8	67	109	15	15	8	11
	(103)	(123)	(8)	(11)	(70)	(107)	(22)	(17)	(7)	(8)
19.5	123	105	9	8	71	102	11	17	8	9
	(121)	(117)	(10)	(9)	(68)	(105)	(9)	(21)	(9)	(8)
78.1	107	126	10	7	78	108	24	23	11	15
	(117)	(120)	(12)	(9)	(73)	(108)	(18)	(20)	(10)	(13)
313	114	105	18	14	79	113	14	26	11	15
	(105)	(115)	(16)	(12)	(81)	(105)	(12)	(20)	(10)	(14)
1250	112	117	10	11	64	94	11	25	2	14
	(103)	(117)	(11)	(12)	(65)	(111)	(12)	(20)	(5)	(14)
5000	109	119	15	11	47	107	9	22	5	13
	(111)	(114)	(13)	(10)	(59)	(96)	(13)	(20)	(6)	(12)
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 (674)	2-AA (1232)	NaN ₃ (305)	2-AA (231)	AF-2 (1337)	2-AA (806)	AF-2 (422)	2-AA (436)	9-AA (472)	2-AA (206)

Experimental Data-2

(B0404-2/2)

Conc. µg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2 <i>uvrA</i> /pKM101		TA98		TA1537	
DMSO	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
		(114)	(115)	(6)	(10)	(77)	(97)	(14)	(15)	(7)
	114	119	11	13	70	99	15	20	6	6
313	111	93	2	9	89	89	14	16	7	5
	(113)	(106)	(7)	(11)	(80)	(94)	(15)	(18)	(7)	(6)
	100	114	6	8	78	102	16	24	6	8
625	83	112	7	7	62	111	10	13	6	16
	(92)	(113)	(7)	(8)	(70)	(107)	(13)	(19)	(6)	(12)
	111	131	6	11	66	108	18	15	7	10
1250	101	86	11	13	75	120	15	18	8	9
	(106)	(109)	(9)	(12)	(71)	(114)	(17)	(17)	(8)	(10)
	113	109	10	5	63	84	10	26	5	9
2500	96	111	5	11	68	96	8	16	2	10
	(105)	(110)	(8)	(8)	(66)	(90)	(9)	(21)	(4)	(10)
	93	117	10	11	71	93	14	23	5	14
5000	96	108	10	11	59	87	15	16	6	8
	(95)	(113)	(10)	(11)	(65)	(90)	(15)	(20)	(6)	(11)
Judgement	-	-	-	-	-	-	-	-	-	-
Specific Mutagenicity										
Positive Control	AF-2 (612)	2-AA (1144)	NaN ₃ (268)	2-AA (249)	AF-2 (1069)	2-AA (676)	AF-2 (401)	2-AA (459)	9-AA (476)	2-AA (189)