Chemical Name ; Palmitic acid

Synonym ; Hexadecanoic acid
ﾍｷｻﾃﾞｶﾝ酸

Molecular Weight ; 256.43
Melting Point ; 63-64℃[CHCD]
Boiling Point ; 390℃[CHCD]
Flashing Point ; －
Molecular Formula ; $C_{16}H_{32}O_2$
Chemical Structure $CH_3(CH_2)_{14}COOH$

CAS No. ; 57-10-3
MITI No. ; (2)-608
ML No. ; －
Specified Chemical Substances ; －

Source of Substance; Tokyo Kasei Kogyo Co., Ltd.
Lot No. ; GE01
Purity ; 95%

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/pKM101		TA98		TA1537	
	S9－	S9＋	S9－	S9＋	S9－	S9＋	S9－	S9＋	S9－	S9＋
DMSO	(112)	(129)	(7)	(11)	(60)	(90)	(21)	(29)	(7)	(9)
	121	129	6	13	51	71	15	24	3	13
	100	156	8	17	62	62	17	33	7	13
1 .22	(111)	(143)	(7)	(15)	(57)	(67)	(16)	(29)	(5)	(13)
	116	123	7	9	43	70	21	33	5	5
	119	129	7	8	44	71	26	30	7	13
4 .88	(118)	(126)	(7)	(9)	(44)	(71)	(24)	(32)	(6)	(9)
	85	98	11	8	69	61	15	22	5	9
	96	115	8	7	63	72	17	28	5	10
19 .5	(91)	(107)	(10)	(8)	(66)	(67)	(16)	(25)	(5)	(10)
	64	124	6	6	56	69	20	17	3	11
	87	111	10	13	61	92	11	28	2	6
78 .1	(76)	(118)	(8)	(10)	(59)	(81)	(16)	(23)	(3)	(9)
	67	117	6	14	51	87	16 *	23	3 *	10
	76	134	3	14	47	90	16 *	26	3 *	9
313	(72)	(126)	(5)	(14)	(49)	(89)	(16 *)	(25)	(3 *)	(10)
	66 *	83 *	7 *	8	57	78	9 *	18 *	3 *	4 *
	60 *	118 *	4 *	7	41	91	14 *	16 *	4 *	4 *
1250 †	(63 *)	(101 *)	(6 *)	(8)	(49)	(85)	(12 *)	(17 *)	(4 *)	(4 *)
	65 *	83 *	3 *	4 *	38	57	14 *	7 *	4 *	6 *
	66 *	83 *	6 *	4 *	52	55	9 *	3 *	2 *	5 *
5000 †	(66 *)	(83 *)	(5 *)	(4 *)	(45)	(56)	(12 *)	(5 *)	(3 *)	(6 *)
Judgement	－	－	－	－	－	－	－	－	－	－
Specific Mutagenicity										
Positive Control	AF-2 (594)	2-AA (1263)	NaN_3 (442)	2-AA (330)	AF-2 (984)	2-AA (1103)	AF-2 (584)	2-AA (446)	9-AA (809)	2-AA (215)

* Growth inhibitation was observed.
† Test chemical was precipitated with and without S9mix.

Conc. μg/plate	Number of Revertants/plate									
	Base-substitution						Frame-shift			
	TA100		TA1535		WP2*uvr*A/pKM101		TA98		TA1537	
	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+	S9−	S9+
DMSO	(136)	(143)	(13)	(15)	(47)	(72)	(19)	(28)	(7)	(9)
4 .88							21 16 (19)		10 3 (7)	
9 .77							23 22 (23)		2 3 (3)	
19 .5	115 127 (121)	152 129 (141)	11 8 (10)				10 16 (13)	32 30 (31)	9 6 (8)	14 11 (13)
39 .1	113 142 (128)	136 165 (151)	10 11 (11)	24 16 (20)			13 18 (16)	29 13 (21)	8 3 (6)	13 9 (11)
78 .1	104 114 (109)	148 157 (153)	7 7 (7)	15 10 (13)	39 62 (51)	85 94 (90)	17 20 (19)	25 18 (22)	8 8 (8)	13 14 (14)
156	100 108 (104)	138 146 (142)	14 8 (11)	15 14 (15)	66 51 (59)	70 97 (84)	16 * 17 * (17 *)	25 26 (26)	8 * 10 * (9 *)	11 11 (11)
313	101 97 (99)	155 145 (150)	13 8 (11)	18 9 (14)	48 57 (53)	93 86 (90)	25 * 16 * (21 *)	25 37 (31)	3 * 5 * (4 *)	8 13 (11)
625 †	108 97 (103)	151 126 (139)	8 0 (4)	9 10 (10)	52 53 (53)	70 81 (76)		25 21 (23)		12 11 (12)
1250 †	105 * 68 * (87 *)	139 * 108 * (124 *)	5 * 5 * (5 *)	7 9 (8)	48 38 (43)	80 74 (77)		21 * 24 * (23 *)		5 * 6 * (6 *)
2500 †				11 13 (12)	50 49 (50)	74 66 (70)				
5000 †				7 * 12 * (10 *)	53 * 47 * (50 *)	62 * 70 * (66 *)				
Judgement	−	−	−	−	−	−	−	−	−	−
Specific Mutagenicity										
Positive Control	AF-2 (576)	2-AA (1187)	NaN_3 (468)	2-AA (313)	AF-2 (1172)	2-AA (1082)	AF-2 (574)	2-AA (470)	9-AA (510)	2-AA (207)