α-Hydro-ω-hydroxypoly(oxy-1,4-butanediyl)
(α－ﾋﾄﾞﾛｰω－ﾋﾄﾞﾛｵｷｼﾎﾟﾘ(ｵｷｼｰ1,4－ﾌﾞﾀﾝｼﾞｲﾙ)

Experimental Data-1

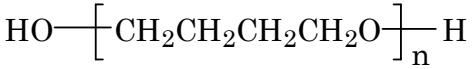
(B9721-1/2)

Chemical Name ; α-Hydro-ω-hydroxy poly(oxy-1,4-butanediyl)

Synonym ; Poly(tetramethylene oxide)
Poly (tetramethylene ether) glycol
ﾎﾟﾘ(ﾃﾄﾗﾒﾁﾚﾝｵｷｼﾄﾞ)

Molecular Weight ; Average Mw 600～710
Melting Point ; 11-19℃[Aldrich]
Boiling Point ; －
Flashing Point ; >110℃[Aldrich]
Molecular Formula ; －

Chemical Structure



CAS No. ; 25190-06-1
MITI No. ; (7)-129
ML No. ; －
Specified Chemical Substances ; －

Source of Substance; Wako Jyunyaku Kogyo Co., Ltd.
Lot No. ; ESQ7234
Purity ; －

Vehicle ; Dehydrated 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	(115)	(115)	(10)	(9)	(67)	(93)	(19)	(24)	(5)	(12)
	129	113	9	14	52	86	15	23	8	11
	130	121	5	7	59	99	17	24	3	11
2 .44	(130)	(117)	(7)	(11)	(56)	(93)	(16)	(24)	(6)	(11)
	143	131	17	5	83	87	11	33	3	8
	123	137	8	14	78	100	18	31	10	10
9 .77	(133)	(134)	(13)	(10)	(81)	(94)	(15)	(32)	(7)	(9)
	152	143	6	17	67	84	20	26	5	10
	146	135	2	13	57	70	11	18	7	6
39 .1	(149)	(139)	(4)	(15)	(62)	(77)	(16)	(22)	(6)	(8)
	143	156	6	8	79	99	13 *	21	7 *	13
	129	149	10	5	62	85	26 *	22	9 *	10
156	(136)	(153)	(8)	(7)	(71)	(92)	(20 *)	(22)	(8 *)	(12)
	123 *	133	7 *	8	85	106	18 *	29	7 *	10
	133 *	151	7 *	9	75	91	16 *	28	1 *	10
625	(128 *)	(142)	(7 *)	(9)	(80)	(99)	(17 *)	(29)	(4 *)	(10)
	117 *	157	6 *	11	78	93	14 *	30	2 *	9
	126 *	153	8 *	8	64	102	15 *	23	2 *	9
2500	(122 *)	(155)	(7 *)	(10)	(71)	(98)	(15 *)	(27)	(2 *)	(9)
	84 *	163	2 *	8	71	97	20 *	43	0 *	10
	119 *	135	10 *	6	72	100	6 *	30	0 *	3
10000	(102 *)	(149)	(6 *)	(7)	(72)	(99)	(13 *)	(37)	(0 *)	(7)
Judgement	－	－	－	－	－	－	－	－	－	－
Specific Mutagenicity										
Positive Control	AF-2 (550)	2-AA (1137)	NaN_3 (451)	2-AA (321)	AF-2 (900)	2-AA (1125)	AF-2 (520)	2-AA (445)	9-AA (671)	2-AA (168)

* Growth inhibitation was observed.

Experimental Data-2

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	(126)	(138)	(8)	(11)	(46)	(69)	(20)	(27)	(8)	(7)
2 .44							18 22 (20)		9 13 (11)	
4 .88							26 23 (25)		10 8 (9)	
9 .77	153 123 (138)		6 9 (8)				15 11 (13)		9 8 (9)	
19 .5	126 136 (131)		9 6 (8)				18 22 (20)		7 7 (7)	
39 .1	133 145 (139)		13 10 (12)				15 26 (21)		9 5 (7)	
78 .1	159 124 (142)		10 10 (10)				21 21 (21)		3 3 (3)	
156	152 155 (154)		9 8 (9)				20 * 24 * (22 *)		3 * 0 * (2 *)	
313	155 105 (130)		13 8 (11)				20 * 21 * (21 *)		2 * 3 * (3 *)	
625	105 * 136 * (121 *)	185 173 (179)	7 * 6 * (7 *)	16 9 (13)	39 49 (44)	75 82 (79)		29 29 (29)		9 9 (9)
1250	119 * 108 * (114 *)	178 151 (165)	6 * 11 * (9 *)	11 11 (11)	34 45 (40)	70 77 (74)		38 36 (37)		5 6 (6)
2500		137 143 (140)		13 7 (10)	43 46 (45)	76 74 (75)		30 28 (29)		10 5 (8)
5000		177 164 (171)		11 10 (11)	45 30 (38)	91 70 (81)		25 26 (26)		8 8 (8)
10000		164 138 (151)		15 15 (15)	52 30 (41)	79 53 (66)		28 33 (31)		10 10 (10)
Judgement	−	−	−	−	−	−	−	−	−	−
Specific Mutagenicity										
Positive Control	AF-2 (546)	2-AA (1378)	NaN_3 (377)	2-AA (344)	AF-2 (1174)	2-AA (1091)	AF-2 (433)	2-AA (459)	9-AA (478)	2-AA (188)

Experimental Data-3 (B9721-2/2)

Conc. μg/plate	Number of Revertants/plate	
	Frame-shift	
	TA98	TA1537
	S9−	S9−
DMSO	(24)	(8)
4 .88	20 16 (18)	5 13 (9)
9 .77	21 10 (16)	13 11 (12)
19 .5	22 20 (21)	8 10 (9)
39 .1	22 16 (19)	13 13 (13)
78 .1	20 28 (24)	11 10 * (11 *)
156	15 * 16 * (16 *)	11 * 13 * (12 *)
313	28 * 20 * (24 *)	8 * 6 * (7 *)
Judgement	−	−
Specific Mutagenicity		
Positive Control	AF-2 (554)	9-AA (705)