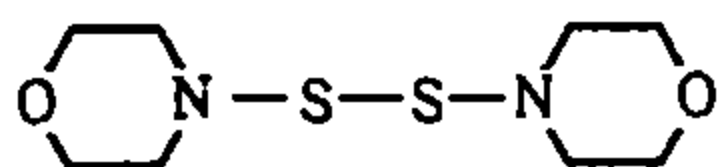


4,4'-Dithiodimorpholine (4,4'-ジチオジモルホリン)

Chemical Name: 4,4'-Dithiodimorpholine
 Synonym: N,N'-Dithiobis(morpholine)
 4,4'-Dithiobis(morpholine)
 Molecular weight: 236.35
 Melting point: 125°C
 Boiling point: °C
 Chemical Structure

 CAS No: 103-34-4
 MITI No: (5)-892
 Source of Substance: Tokyo Kasei Kogyo Co. Ltd
 Lot. No.: HAQ01
 Purity: extra pure reagent
 Vehicle: DMSO

Mutagenicity
 in Bacterial Test: Negative

IARC Evaluation: not yet cited

Judgement
 Specific Mutagenicity
 Positive
 Control

Con. μg/ plate	Experimental Data											
	Number of Revertants/plate											
	Base-substitution						Frame-shift					
	TA100		TA1535		WP2uvrA		TA98		TA1537		TA1538	
S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	
DMSO	(198)	()	(38)	()	(31)	()	(19)	()	(6)	()	(13)	()
	162		36					13			19	
	178		48					11			9	
2	(170)	()	(43)	()	()	()	()	()	(12)	()	(14)	()
	175		33		30		26		8		13	
	168		44		36		32		7		14	
5	(172)	()	(39)	()	(33)	()	(29)	()	(8)	()	(14)	()
	171		38		26		16		5		13	
	148		29		31		19		10		13	
10	(160)	()	(34)	()	(29)	()	(18)	()	(8)	()	(13)	()
	171		27		28		19		8		11	
	140		45		35		13		6		21	
20	(156)	()	(36)	()	(32)	()	(16)	()	(7)	()	(16)	()
	162		25		38		18		7		14	
	170		28		28		23		14		11	
50	(166)	()	(27)	()	(33)	()	(21)	()	(11)	()	(13)	()
	126		18		47		14		0*		13	
	158		18		48		25		11*		16	
100	(142)	()	(18)	()	(48)	()	(20)	()	(6*)	()	(15)	()
	0*		0*		33		16*		0*		0*	
	0*		0*		38		16*		0*		0*	
200	(0*)	()	(0*)	()	(36)	()	(16*)	()	(0*)	()	(0*)	()
					0*		0*					
					0*		0*					
500	()	()	()	()	(0*)	()	(0*)	()	()	()	()	()
	-		-		-		-		-		-	
	AF2	2AA 0.5	NaN ₃	2AA	AF2	2AA 80	AF2	2AA	9AA	2AA	4NQO	2AA
	(815)	()	(328)	()	(265)	()	(501)	()	(138)	()	(349)	()

Experimental Data

Con. μg/ plate	Number of Revertants/plate											
	Base-substitution						Frame-shift					
	TA100		TA1535		WP2uvrA		TA98		TA1537		TA1538	
	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+	S9-	S9+
DMSO	()	(207)	()	(21)	()	(40)	()	(45)	()	(14)	()	(27)
										16		22
										17		25
10	()	()	()	()	()	()	()	()	()	(17)	()	(24)
		174		19		33		33		18		24
		185		26		36		40		20		20
20	()	(180)	()	(23)	()	(35)	()	(37)	()	(19)	()	(22)
		167		19		40		37		19		21
		177		20		51		43		26		27
50	()	(172)	()	(20)	()	(49)	()	(40)	()	(23)	()	(24)
		171		28		22		37		16		23
		194		30		39		33		18		25
100	()	(183)	()	(29)	()	(31)	()	(35)	()	(17)	()	(24)
		187		28		45		41		11		18
		177		12		52		45		31		29
200	()	(182)	()	(20)	()	(49)	()	(43)	()	(21)	()	(24)
		136*		19		39*		45		3*		9*
		145*		16		32*		26		3*		10*
500	()	(141*)	()	(18)	()	(36*)	()	(36)	()	(3*)	()	(9*)
		81*		17*		30*		16*		0*		0*
		103*		10*		25*		6*		0*		0*
1000	()	(92*)	()	(14*)	()	(28*)	()	(11*)	()	(0*)	()	(0*)
		0*		0*		0*		0*				
		0*		0*		0*		0*				
2000	()	(0*)	()	(0*)	()	(0*)	()	(0*)	()	()	()	()
Judgement												
Specific Mutagenicity												
Positive Control	AF2	2AA 0.5	NaN ₃	2AA	AF2	2AA 80	AF2	2AA	9AA	2AA	4NQO	2AA
Control	()	(695)	()	(230)	()	(1992)	()	(443)	()	(710)	()	(542)