

Ethyl 3-bromopropionate (3-ブロモプロピオン酸エチル)

<u>Chemical Name:</u>	Ethyl 3-bromopropionate
<u>Synonym</u>	Ethyl β -bromopropionate Propionic acid, 2-bromo-, ethylester
<u>Molecular weight:</u>	181.02
<u>Melting point:</u>	°C
<u>Boiling point:</u>	135-136°C (50mmHg)
<u>Flashing point:</u>	79°C
<u>Chemical Structure</u>	
	$\text{BrCH}_2\text{CH}_2\text{COOC}_2\text{H}_5$
<u>CAS No :</u>	539-74-2
<u>MITI No :</u>	(2)-1179, (2)-2647
<u>Source of Substance:</u>	Tokyo Kasei Kogyo Co., Ltd.
<u>Lot. No. :</u>	A001
<u>Purity:</u>	%
<u>Vehicle:</u>	DMSO

Judgement for
Chromosomal Aberration in CHL: Positive

IARC Evaluation : not yet cited

Experimental Data

	Treated Time (Hr)	Concentration (mg/ml)	No. of Meta-phase	Poly-ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							
						Gap	CTB	CTE	CSB	CSE	Total		Judge
											-G	+G	
DMSO	24		200	0	—	1.0	0.5	0	0	0	0.5	1.5	—
	48		200	0	—	0	0	0	0	0	0	0	—
Test Chemical													
	24	0.03	200	0	—	1.0	1.5	1.0	0	0	2.5	3.5	—
		0.06	200	0	—	5.5	6.5	2.0	0	0	8.5	11.5	—
		0.09	200	0.5	—	15.0	17.0	17.0	0	0	29.0	32.5	+
		0.12	200	0	—	46.0	40.0	35.0	0	0	74.0	77.5	+
		0.15				No observation for metaphase							
	48	0.03	200	0	—	0	0	0.5	0	0	0.5	0.5	—
		0.06	200	0	—	1.0	0.5	2.0	0	0.5	3.0	3.5	—
		0.09	200	0.5	—	1.0	0.5	2.0	0	0.5	3.0	3.5	—
		0.12	200	1.5	—	7.5	6.0	15.5	0	1.0	20.5	21.5	+
		0.15	200	2.0	—	13.0	20.0	26.5	0	0	45.0	45.5	+
Positive Control													
(MMC)	24	0.00008	200	0	—	7.0	13.0	41.5	0	0	46.0	48.0	+
	48	0.00008	200	2.0	—	11.5	12.5	46.0	0	0	53.0	53.5	+

Experimental Data

S 9 with or without	Concent- ration (mg/ml)	No. of Meta- phase	Poly- ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							Judge	
										Total			
					Gap	CTB	CTE	CSB	CSE	-G	+G		
DMSO	-	200	0	-	0	0	0.5	0	0	0.5	0.5	-	
	+	200	0	-	0	0.5	0	0	0	0.5	0.5	-	
Test Chemical													
	-	0.1	200	0	-	0.5	0.5	0	0	0	0.5	1.0	-
		0.2	200	0.5	-	1.0	1.5	3.0	0	0	4.0	4.5	-
		0.3	200	1.5	-	2.0	9.5	18.5	0	0	24.5	25.5	+
		0.4				No observation for metaphase							
		0.8				No observation for metaphase							
	+	0.1	200	0	-	0.5	0	1.0	0	0	1.0	1.5	-
		0.2	200	0	-	0.5	1.0	11.0	0	0	12.0	12.0	+
		0.3	200	0	-	1.5	4.0	33.5	0	0	37.5	37.5	+
		0.4	200	0	-	2.5	6.0	75.5	0	0	79.0	80.0	+
		0.8				No observation for metaphase							
Positive Control													
(B(a)P)	-		200	0	-	1.5	0	0	0	0	0	1.5	-
	+		200	0	-	3.5	4.5	16.5	0.5	0	20.0	22.0	+