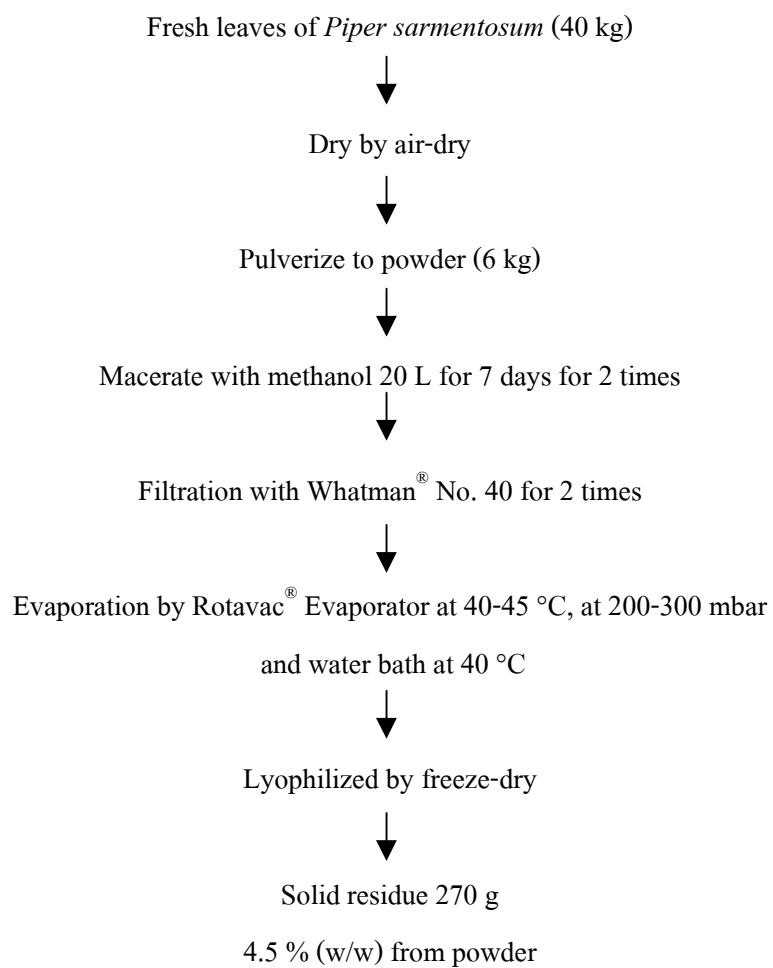


**APPENDIX-A****Extraction procedure**

## APPENDIX-B

### Agent preparation

1. 0.9% normal saline (0.9% NSS)  
Dissolve 0.9 g of Sodium chloride with 100 ml of distilled water
2. 2.5% (v/v) formalin  
Dilute 0.625 ml of 40% formalin with 0.9% NSS to produce 10 ml
3. 0.6% (v/v) acetic acid  
Dilute 0.06 ml of acetic acid with 0.9% NSS to produce 10 ml
4. 1% (w/v) carrageenan  
Dissolve 0.1 g of carrageenan with 10 ml of 0.9% NSS
5. 20% (w/v) Brewer's yeast  
Dissolve 2 g of Brewer's yeast with 10 ml of 0.9% NSS
6. Morphine sulfate at dose of 5 mg/kg and naloxone at dose of 2 mg/kg  
Dissolve morphine or naloxone with 0.9% NSS
7. Aspirin, Methanol extract of *Piper sarmentosum* from leaves (MEPS) at doses of 50, 100 and 200 mg/kg  
Dissolve aspirin or MEPS with distilled water

### Dosing for oral administration

Methanol extract of *Piper sarmentosum* leaves and aspirin administered orally in a constant volume, 10 ml/kg for mice and 5 ml/kg for rats.

**APPENDIX-C**

**Effect of standard drugs (morphine, naloxone) and MEPS on nociceptive response in hot plate test in mice.**

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Control (DW), p.o.	1	32	8.6	8.3	9.2	8.7	9.9	9.8
	2	33	8.3	8.5	8.6	9.4	9.1	8.5
	3	33	9.4	10.0	8.8	8.9	8.8	9.4
	4	34	8.0	8.1	8.0	8.4	8.3	8.0
	5	36	7.9	8.8	10.1	10.7	9.0	8.3
	6	28	8.3	8.1	8.4	9.0	9.6	7.6
	7	29	7.5	8.3	8.2	8.5	8.6	8.1
	8	35	7.8	10.4	7.9	6.9	8.9	7.8
	9	31	8.5	6.6	8.6	8.4	8.4	10.1
	10	30	8.1	8.6	9.4	8.1	10.8	7.1
	Mean±S.E.M.	32.1±0.8	8.24±0.17	8.57±0.33	8.72±0.22	8.70±0.31	9.14±0.24	8.47±0.31

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Morphine 5 mg/kg, s.c.	1	33	9.2	9.4	18.5	24.4	27.4	19.8
	2	32	9.6	13.0	18.7	25.1	27.3	20.0
	3	34	8.9	18.0	18.5	23.2	25.3	22.2
	4	28	8.1	12.9	19.2	22.8	26.1	20.1
	5	30	8.3	12.8	19.0	20.2	27.4	20.3
	6	34	8.4	11.0	19.0	22.7	25.4	19.9
	7	31	7.8	13.1	20.0	23.2	26.0	20.5
	8	30	7.8	15.0	22.2	21.9	23.9	20.5
	9	31	8.3	12.8	19.1	22.9	29.4	19.6
	10	34	8.5	12.7	12.6	26.6	25.0	19.6
	Mean±S.E.M.	31.7±0.7	8.49±0.19	13.07±0.72	18.68±0.76	23.30±0.56	26.32±0.50	20.25±0.24

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Naloxone 2 mg/kg, i.p.	1	35	8.6	7.4	9.0	8.9	8.9	8.8
	2	32	7.8	9.6	8.0	10.0	8.8	9.8
	3	33	9.0	9.1	8.0	10.9	8.7	8.0
	4	34	8.8	8.2	9.1	8.4	10.3	7.9
	5	34	8.6	8.3	10.5	8.7	9.2	9.0
	6	29	9.1	8.1	7.8	8.0	8.6	9.3
	7	29	7.6	8.3	8.1	7.5	8.0	8.8
	8	30	7.5	10.0	7.7	7.9	9.1	7.9
	9	33	8.0	8.6	8.7	8.1	7.9	8.9
	10	35	8.0	6.6	9.4	8.4	10.0	10.8
	Mean±S.E.M.	32.4±0.7	8.30±0.19	8.42±0.32	8.63±0.28	8.68±0.33	8.95±0.24	8.92±0.29

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
MEPS 50 mg/kg, p.o.	1	34	8.5	9.0	8.7	8.6	9.9	8.1
	2	32	8.0	7.6	9.5	8.4	9.9	8.8
	3	32	7.8	8.5	8.9	7.8	9.3	9.0
	4	33	8.3	8.3	9.0	8.5	8.9	10.8
	5	30	7.6	7.1	9.3	10.3	9.7	8.9
	6	34	8.0	8.4	8.6	8.7	9.1	7.6
	7	28	8.3	8.3	8.0	10.2	8.2	7.3
	8	29	8.7	9.5	8.0	8.9	9.2	8.8
	9	30	6.7	8.3	8.7	8.2	8.0	8.1
	10	33	7.1	7.5	8.3	7.8	8.6	8.6
	Mean±S.E.M.	31.5±0.7	7.90±0.20	8.25±0.22	8.70±0.16	8.74±0.26	9.08±0.21	8.60±0.31

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
MEPS 100 mg/kg, p.o.	1	29	7.8	8.8	9.1	8.5	8.9	8.8
	2	28	6.9	9.0	8.9	8.9	9.1	8.6
	3	30	8.3	8.6	9.3	9.0	9.3	10.4
	4	33	8.0	8.3	8.8	8.8	9.6	8.5
	5	34	8.6	9.1	9.8	8.0	7.0	9.0
	6	36	7.7	8.2	8.5	9.1	9.4	8.0
	7	34	8.4	10.4	8.7	9.3	8.8	8.1
	8	34	8.1	8.1	8.3	9.0	9.8	7.9
	9	30	7.6	6.6	7.3	8.6	10.4	10.7
	10	31	6.9	6.2	7.5	8.2	6.3	8.9
	Mean±S.E.M.	31.9±0.8	7.83±0.18	8.33±0.38	8.62±0.24	8.74±0.13	8.86±0.40	8.89±0.30



Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
MEPS 200 mg/kg, p.o.	1	32	8.3	8.6	8.7	11.1	10.2	10.3
	2	32	8.6	8.3	9.2	10.4	11.1	10.5
	3	32	8.0	9.0	8.3	10.3	10.8	9.0
	4	33	7.7	8.7	9.6	8.6	9.1	11.2
	5	34	7.4	7.6	8.8	9.5	10.5	7.7
	6	30	8.2	8.0	10.0	10.3	11.3	9.3
	7	32	8.8	8.3	8.5	11.6	8.9	9.9
	8	30	7.9	9.6	9.1	9.6	11.4	11.5
	9	31	8.0	8.3	7.4	10.1	12.2	9.0
	10	34	7.6	6.4	7.8	10.8	11.3	10.4
	Mean±S.E.M.	32.0±0.4	8.05±0.14	8.28±0.27	8.74±0.25	10.23±0.27	10.68±0.33	9.88±0.37

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Naloxone 2 mg/kg, i.p. + Morphine 5 mg/kg, s.c.	1	32	9.2	10.1	13.5	8.2	12.4	11.2
	2	31	9.0	11.9	8.0	10.1	10.0	8.1
	3	31	8.4	6.6	11.0	13.1	10.2	9.1
	4	32	7.8	8.3	7.8	9.4	10.5	8.3
	5	34	8.4	11.1	9.1	13.3	7.8	9.5
	6	35	8.6	8.7	8.4	9.4	6.9	8.6
	7	30	7.3	10.1	10.3	8.6	8.7	7.7
	8	29	7.7	8.6	9.2	9.9	9.5	7.4
	9	30	7.6	7.3	8.7	7.5	8.4	10.9
	10	34	8.1	10.4	12.3	7.9	8.4	8.4
	Mean±S.E.M.	32.8±0.9	8.21±0.20	9.31±0.53	9.83±0.60	9.74±0.64	9.28±0.50	8.92±0.40

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Naloxone 2 mg/kg,i.p. + MEPS 200 mg/kg, p.o.	1	29	8.3	10.1	9.0	7.9	8.6	6.9
	2	32	8.0	8.6	9.9	8.3	8.0	10.0
	3	30	8.4	9.4	9.6	8.1	7.7	8.6
	4	28	6.8	9.8	7.1	8.6	10.0	8.9
	5	28	7.3	9.2	7.2	10.3	9.6	10.5
	6	34	7.8	8.8	12.0	11.0	8.5	10.3
	7	33	7.9	7.9	11.4	9.7	8.7	10.4
	8	36	8.2	8.1	7.0	8.8	8.0	8.1
	9	30	8.5	10.5	9.6	8.2	11.2	9.1
	10	30	7.8	7.5	10.6	10.6	9.4	10.0
	Mean±S.E.M.	31.0±.8	7.90±0.17	8.99±0.31	9.34±0.56	9.15±0.36	8.97±0.34	9.28±0.37

**Effect of standard drugs (morphine, naloxone) and MEPS on nociceptive response in tail flick test in rats.**

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Control (DW), p.o.	1	155	1.8	1.4	1.7	1.8	1.8	1.7
	2	150	1.4	1.7	2.0	1.7	1.8	1.6
	3	152	1.6	1.7	1.8	1.6	1.5	2.2
	4	157	1.4	1.6	1.6	1.6	2.1	1.7
	5	149	1.4	1.5	1.6	1.6	1.6	1.7
	6	145	1.6	1.6	1.5	1.7	1.6	1.5
	7	149	1.4	1.7	1.7	1.8	1.8	1.8
	8	151	1.7	1.6	1.6	1.6	1.5	1.7
	9	154	1.7	1.8	1.7	1.8	1.6	1.6
	10	152	1.6	1.7	1.7	1.7	1.9	1.6
	Mean±S.E.M.	151.4±1.1	1.56±0.05	1.63±0.04	1.69±0.04	1.69±0.03	1.72±0.06	1.71±0.06

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Morphine 5 mg/kg, s.c.	1	142	1.7	2.5	4.4	4.8	3.7	3.7
	2	147	1.7	2.9	4.4	4.5	3.6	3.4
	3	152	1.4	2.7	3.9	4.1	3.3	3.1
	4	150	1.6	2.3	4.2	4.5	3.6	3.1
	5	149	1.7	2.4	4.5	4.7	3.3	3.0
	6	145	1.6	2.2	3.8	4.4	3.9	3.1
	7	155	1.3	2.5	4.2	4.5	3.8	3.4
	8	158	1.6	2.4	4.2	4.5	3.8	2.8
	9	152	1.8	2.7	4.4	4.2	3.4	3.4
	10	154	1.6	2.4	4.4	4.4	3.6	3.3
	Mean±S.E.M.	150.4±1.5	1.60±0.05	2.50±0.07	4.24±0.07	4.46±0.07	3.60±0.07	3.23±0.08

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Naloxone 2 mg/kg, i.p.	1	160	1.5	1.5	1.7	1.7	1.7	1.6
	2	152	1.6	1.5	1.8	1.8	1.7	1.7
	3	148	1.4	1.9	1.7	1.9	1.8	1.8
	4	153	1.6	1.8	1.8	1.7	1.7	1.8
	5	152	1.7	1.8	1.6	1.7	1.6	2.0
	6	155	1.7	1.5	1.5	1.7	1.5	2.0
	7	154	1.7	1.6	1.8	1.5	1.6	1.5
	8	155	1.6	1.6	1.8	1.6	1.7	1.6
	9	149	1.5	1.4	1.7	1.6	1.8	1.6
	10	156	1.4	1.7	1.6	1.9	1.7	1.7
	Mean±S.E.M.	153.4±1.1	1.56±0.04	1.63±0.05	1.70±0.03	1.71±0.04	1.68 ±0.03	1.73±0.05

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
MEPS 50 mg/kg, p.o.	1	152	1.7	1.7	2.0	1.7	2.1	1.9
	2	148	1.6	1.8	1.7	1.6	2.1	1.8
	3	144	1.7	1.8	1.7	1.8	1.7	1.7
	4	154	1.7	1.8	1.4	1.5	1.5	1.5
	5	159	1.6	1.8	1.8	1.8	1.9	1.9
	6	154	1.6	1.6	1.7	1.5	1.6	1.6
	7	155	1.5	1.6	1.6	1.6	1.6	1.7
	8	156	1.9	1.8	1.7	1.7	1.7	1.7
	9	156	1.4	1.7	1.6	1.7	1.9	1.8
	10	150	1.6	1.7	1.7	1.6	1.9	2.0
	Mean±S.E.M.	152.8±1.4	1.63±0.04	1.73±0.03	1.69±0.05	1.65±0.03	1.80±0.07	1.76±0.05

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
MEPS 100 mg/kg, p.o.	1	155	1.6	1.8	1.7	1.8	2.2	2.2
	2	150	1.7	1.8	1.6	1.6	2.1	1.8
	3	151	1.7	1.8	1.6	1.6	1.5	1.7
	4	148	1.8	1.9	1.6	1.9	1.5	1.6
	5	152	1.6	2.1	1.8	1.8	1.7	2.0
	6	153	1.7	1.7	1.9	2.0	1.9	1.8
	7	152	1.6	1.5	2.0	1.8	1.7	1.7
	8	148	1.7	1.5	1.8	1.7	1.7	1.6
	9	152	1.6	1.7	1.7	1.7	1.7	1.7
	10	152	1.5	1.7	1.6	1.9	1.6	1.8
	Mean±S.E.M.	151.3±0.7	1.65±0.03	1.75±0.06	1.73±0.04	1.78±0.04	1.76±0.07	1.79±0.06



Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
MEPS 200 mg/kg, p.o.	1	145	1.8	1.8	1.8	1.9	2.3	2.1
	2	162	2.0	1.6	2.3	2.2	2.5	2.0
	3	158	1.7	2.1	1.8	2.1	2.0	1.7
	4	156	1.6	2.0	1.6	2.0	1.8	2.2
	5	153	1.7	1.9	2.0	1.9	2.0	1.7
	6	155	1.4	1.8	1.8	1.9	1.8	1.9
	7	160	1.5	1.8	2.1	2.2	2.0	2.1
	8	152	1.6	1.7	2.0	2.0	2.1	2.1
	9	153	1.6	2.0	2.2	1.6	2.1	2.2
	10	155	1.7	1.6	1.8	1.7	1.8	2.2
	Mean±S.E.M.	154.9±1.5	1.66±0.05	1.83±0.05	1.94±0.07	1.95±0.06	2.04±0.07	2.02±0.06

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Naloxone 2 mg/kg, i.p. + Morphine 5 mg/kg, s.c.	1	162	1.7	1.7	1.7	1.8	1.6	1.7
	2	160	1.6	1.6	1.6	1.6	1.8	2.0
	3	158	1.7	1.7	1.7	1.8	1.7	1.6
	4	165	1.6	1.6	1.5	1.8	1.8	1.5
	5	152	1.6	1.7	1.6	1.8	1.7	1.7
	6	156	1.5	1.4	1.4	1.7	1.7	1.5
	7	158	1.5	1.7	1.7	1.8	1.8	1.7
	8	152	1.6	1.6	1.6	1.7	1.5	1.5
	9	155	1.4	1.7	1.6	1.5	1.5	1.4
	10	156	1.7	1.8	1.7	1.6	1.7	1.7
	Mean±S.E.M.	157.4±1.3	1.59±0.0	1.65±0.03	1.61±0.03	1.71±0.04	1.68±0.04	1.63±0.05

Group	Number	Weight (g)	Latency of nociceptive response (s)					
			Initial response	30 min	45 min	60 min	75 min	90 min
Naloxone 2 mg/kg, i.p. + MEPS 200 mg/kg, p.o.	1	155	1.7	1.6	1.6	1.6	1.8	1.7
	2	160	1.8	1.5	1.6	1.7	1.9	1.8
	3	162	1.6	1.7	1.7	1.8	1.8	1.7
	4	158	1.7	2.0	2.1	2.0	1.7	1.6
	5	157	1.6	2.3	1.6	1.8	1.7	1.8
	6	157	1.8	2.0	1.7	1.7	1.6	1.7
	7	159	1.5	1.7	1.8	1.7	1.7	2.2
	8	161	1.7	1.6	1.7	1.9	1.6	1.8
	9	153	1.7	1.6	1.5	1.6	1.8	1.8
	10	150	1.6	1.7	1.8	1.5	2.0	1.7
	Mean±S.E.M.	156.9±1.3	1.67±0.03	1.77±0.08	1.71±0.05	1.73±0.05	1.76±0.04	1.78±0.05

**Effect of standard drugs (aspirin ) and MEPS on acetic acid-induced writhing in mice (Writhing test).**

Group	Number	Weight (g)	Number of writhing	Group	Number	Weight (g)	Number of writhing
Control (DW), p.o.	1	33	54	Aspirin 200 mg/kg, p.o.	1	30	20
	2	31	57		2	28	23
	3	33	51		3	30	19
	4	30	53		4	33	13
	5	28	53		5	36	16
	6	28	50		6	35	26
	7	29	53		7	33	22
	8	33	63		8	33	34
	9	32	55		9	32	20
	10	31	52		10	33	16
	Mean±S.E.M.	31.1±0.7	54.1±1.2		Mean±S.E.M.	32.3±0.8	20.9±1.9

Group	Number	Weight (g)	Number of writhing	Group	Number	Weight (g)	Number of writhing
MEPS 50 mg/kg, p.o.	1	32	48	MEPS 100 mg/kg, p.o.	1	35	35
	2	30	53		2	36	45
	3	32	50		3	32	37
	4	38	51		4	33	42
	5	35	48		5	29	37
	6	32	46		6	29	39
	7	31	41		7	30	42
	8	33	45		8	33	38
	9	32	39		9	34	45
	10	35	53		10	33	51
	Mean±S.E.M.	33.0±.7	47.4±1.5		Mean±S.E.M.	32.4±0.8	41.1±1.6

Group	Number	Weight (g)	Number of writhing
MEPS 200 mg/kg, p.o.	1	34	38
	2	34	45
	3	33	33
	4	33	26
	5	33	36
	6	32	41
	7	33	37
	8	31	36
	9	36	40
	10	30	40
	Mean±S.E.M.	32.9±0.5	37.2±1.6

**Effect of standard drugs (morphine and aspirin) and MEPS on formalin-induced licking hind paw in mice (Formalin test).**

Group	Number	Weight (g)	Licking of hind paw (s)	
			Early phase (0-5 min)	Late phase (15-30 min)
Control (DW), p.o.	1	35	73.3	101.4
	2	34	81.3	120.1
	3	32	78.0	91.5
	4	34	74.1	98.7
	5	33	72.9	100.8
	6	34	70.1	105.4
	7	37	78.9	103.6
	8	33	80.9	92.0
	9	40	86.2	93.5
	10	32	77.7	101.1
	Mean±S.E.M.	34.4±0.8	77.34±1.52	100.81±2.63

Group	Number	Weight (g)	Licking of hind paw (s)	
			Early phase (0-5 min)	Late phase (15-30 min)
Morphine 5 mg/kg, s.c.	1	34	28.2	13.8
	2	33	30.8	22.1
	3	30	33.0	16.6
	4	29	26.6	14.4
	5	35	25.9	13.2
	6	33	21.8	25.8
	7	32	37.3	28.4
	8	32	21.0	16.6
	9	34	24.1	18.0
	10	35	17.8	24.1
	Mean±S.E.M.	32.7±0.6	26.65±1.87	19.30±1.71



Group	Number	Weight (g)	Licking of hind paw (s)	
			Early phase (0-5 min)	Late phase (15-30 min)
Aspirin 200 mg/kg, p.o.	1	34	65.9	47.4
	2	33	57.4	29.4
	3	35	54.3	60.9
	4	34	52.5	42.1
	5	33	50.0	63.4
	6	34	50.7	34.8
	7	36	53.9	49.5
	8	32	50.8	54.3
	9	32	48.8	47.4
	10	35	68.9	45.6
	Mean±S.E.M.	33.8±0.4	55.32±2.17	47.48±3.34

Group	Number	Weight (g)	Licking of hind paw (s)	
			Early phase (0-5 min)	Late phase (15-30 min)
MEPS 50 mg/kg, p.o.	1	36	71.5	96.8
	2	32	86.1	98.9
	3	34	76.5	110.1
	4	35	74.0	99.9
	5	35	86.2	99.5
	6	35	76.8	79.5
	7	34	65.6	102.6
	8	33	82.7	94.7
	9	32	82.7	99.0
	10	31	80.0	99.1
	Mean±S.E.M.	33.7±0.5	78.21±2.10	98.01±2.43

Group	Number	Weight (g)	Licking of hind paw (s)	
			Early phase (0-5 min)	Late phase (15-30 min)
MEPS 100 mg/kg, p.o.	1	35	78.1	70.6
	2	32	83.1	92.4
	3	31	71.2	94.2
	4	28	73.3	83.6
	5	28	62.1	87.6
	6	34	79.1	95.4
	7	33	72.1	92.0
	8	34	80.1	102.2
	9	35	82.9	90.9
	10	32	77.2	72.2
	Mean±S.E.M.	32.2±0.8	75.92±2.03	88.11±3.18

Group	Number	Weight (g)	Licking of hind paw (s)	
			Early phase (0-5 min)	Late phase (15-30 min)
MEPS 200 mg/kg, p.o.	1	34	67.6	72.4
	2	34	80.9	75.7
	3	33	60.1	79.0
	4	33	66.9	83.1
	5	32	65.1	93.8
	6	34	70.0	63.4
	7	36	65.1	90.5
	8	29	69.9	78.0
	9	30	75.6	67.7
	10	32	67.4	83.1
	Mean±S.E.M.	32.7±0.7	68.86±1.84	78.67±3.00

**Effect of standard drug (aspirin) and MEPS on carrageenan-induced paw edema in rats.**

Group	Number	Weight (g)	Paw edema volume (ml)						
			Initial paw	0.5 h	1 h	2 h	3 h	4 h	5 h
Control (DW), p.o.	1	152	3.41	5.59	6.82	6.44	6.61	6.04	6.14
	2	160	3.90	5.73	6.63	6.21	7.05	5.58	6.05
	3	153	3.58	4.27	5.41	5.82	5.97	6.44	5.71
	4	154	3.74	5.31	5.84	7.53	6.98	6.19	6.00
	5	150	3.35	4.69	5.55	6.58	6.13	6.29	6.09
	6	154	3.51	4.36	4.86	6.05	6.31	5.28	5.88
	7	155	3.62	4.46	4.87	6.20	6.42	6.05	5.95
	8	160	3.86	5.27	6.19	6.33	6.84	6.28	5.71
	9	153	3.45	4.50	5.82	7.12	6.86	6.55	5.88
	10	155	3.42	4.75	5.55	6.85	6.84	6.06	5.56
	Mean±S.E.M.	154.6±1.0	3.58±0.06	4.89±0.17	5.75±0.21	6.51±0.16	6.60±0.12	6.08±0.12	5.90±0.06

Group	Number	Weight (g)	Paw edema volume (ml)						
			Initial paw	0.5 h	1 h	2 h	3 h	4 h	5 h
Aspirin 200 mg/kg, p.o.	1	153	3.48	4.46	4.34	4.03	3.62	3.56	3.17
	2	164	4.42	5.41	5.71	4.22	4.77	3.71	4.74
	3	156	3.70	4.25	4.78	4.58	4.32	4.21	3.94
	4	156	3.68	4.18	4.70	4.83	5.13	4.74	4.28
	5	153	3.53	4.04	4.44	3.68	4.41	4.85	4.57
	6	150	3.45	4.16	4.41	4.71	4.11	4.17	3.94
	7	168	4.66	5.41	5.86	4.51	4.14	4.26	4.05
	8	152	3.44	4.58	4.64	4.40	4.31	4.06	3.92
	9	155	3.69	4.78	4.82	4.74	4.52	4.37	4.44
	10	154	3.36	3.36	4.45	4.84	4.65	4.70	4.33
	Mean±S.E.M.	156.1±1.8	3.74±0.14	4.57±0.16	4.85±0.17	4.44±0.11	4.40±0.13	4.23±0.13	4.12±0.14

Group	Number	Weight (g)	Paw edema volume (ml)						
			Initial paw	0.5 h	1 h	2 h	3 h	4 h	5 h
MEPS 50 mg/kg, p.o.	1	153	3.45	5.76	6.48	6.45	6.17	5.60	5.44
	2	168	4.72	5.56	5.78	6.03	6.53	6.98	5.82
	3	149	3.26	4.22	4.68	5.52	5.44	5.78	5.60
	4	157	3.90	5.10	5.49	6.13	5.73	5.70	5.21
	5	155	3.53	5.69	5.56	6.16	6.24	5.68	5.58
	6	151	3.34	4.71	4.24	5.35	5.72	5.19	5.41
	7	155	3.68	4.93	5.57	6.05	5.76	5.67	5.45
	8	160	4.11	5.98	6.39	6.54	6.63	6.53	5.87
	9	155	3.68	4.84	5.39	6.00	5.88	5.52	5.14
	10	154	3.43	3.43	5.20	5.62	6.20	6.23	5.68
	Mean±S.E.M.	155.7±1.7	3.71±0.14	5.20±0.17	5.52±0.21	6.04±0.12	6.03±0.12	5.83±0.17	5.49±0.08

	Number	Weight (g)	Paw edema volume (ml)						
			Initial paw	0.5 h	1 h	2 h	3 h	4 h	5 h
MEPS 100 mg/kg, p.o.	1	149	3.27	5.55	5.19	4.45	5.06	4.87	5.00
	2	163	4.23	5.71	4.67	6.19	6.36	6.07	5.58
	3	150	3.31	4.24	4.59	5.25	4.73	6.11	5.49
	4	159	3.92	5.13	6.23	6.73	4.77	5.75	5.79
	5	155	3.51	4.98	6.24	6.54	4.81	5.16	5.65
	6	155	3.50	4.31	4.55	5.46	5.10	5.32	5.22
	7	163	4.32	5.94	5.86	6.34	6.10	5.88	5.51
	8	157	3.66	4.76	5.47	5.81	5.56	5.02	5.16
	9	150	3.33	4.34	4.69	5.75	5.42	5.22	5.49
	10	156	3.68	5.16	5.77	6.22	5.77	5.60	5.56
	Mean±S.E.M.	155.7±1.6	3.67±0.12	5.01±0.19	5.33±0.21	5.87±0.22	5.37±0.18	5.50±0.14	5.45±0.08



Group	Number	Weight (g)	Paw edema volume (ml)						
			Initial paw	0.5 h	1 h	2 h	3 h	4 h	5 h
MEPS 200 mg/kg, p.o.	1	157	3.60	5.66	5.63	4.72	4.43	4.59	4.53
	2	168	4.60	5.75	5.26	6.36	5.13	5.46	4.32
	3	155	3.55	4.65	4.22	5.11	4.74	5.01	5.43
	4	155	3.43	4.69	5.35	5.87	5.54	5.67	5.33
	5	157	3.65	4.56	6.96	5.52	5.15	5.60	6.32
	6	156	3.67	4.55	4.24	5.11	4.34	4.99	5.23
	7	163	4.25	5.55	5.24	5.65	5.06	5.43	5.20
	8	158	3.55	4.85	4.42	5.31	4.94	5.21	5.63
	9	154	3.58	5.02	5.69	5.42	5.24	5.00	4.89
	10	153	3.41	3.41	4.66	5.34	5.64	5.11	5.24
	Mean±S.E.M.	157.6±1.4	3.73±0.12	4.99±0.15	5.24±0.26	5.74±0.14	4.97±0.12	5.22±0.11	5.20±0.18

**Effect of standard drug (aspirin) and MEPS on brewer's yeast-induced pyrexia in rats.**

Group	Number	Weight (g)	Rectal temperature (°C)						
			Before yeast injection	After treatment					
				0 h	1 h	2 h	3 h	4 h	5 h
Control (DW), p.o.	1	149	36.3	37.2	37.2	37.0	37.2	37.0	36.9
	2	152	36.2	37.2	37.1	37.2	37.3	37.0	36.7
	3	154	36.2	37.3	37.2	36.9	36.7	37.2	36.9
	4	158	36.1	37.0	36.9	37.0	36.8	36.8	36.9
	5	158	36.3	37.3	37.0	37.0	37.1	37.1	37.0
	6	163	36.3	37.2	37.1	37.1	37.1	37.3	37.2
	7	158	36.3	37.5	37.1	37.1	37.2	37.0	36.9
	8	155	36.2	37.2	37.2	36.9	36.7	37.0	37.0
	9	156	36.3	37.1	37.2	37.2	37.3	37.0	36.8
	10	162	36.4	37.3	37.3	37.2	37.2	37.0	37.1
	Mean±S.E.M.	156.5±1.4	36.26±0.03	37.23±0.04	37.13±0.04	37.06±0.04	37.06±0.07	37.04±0.04	36.94±0.05

Group	Number	Weight (g)	Rectal temperature (°C)						
			Before yeast injection	After treatment					
				0 h	1 h	2 h	3 h	4 h	5 h
Aspirin 200 mg/kg, p.o.	1	153	36.3	37.0	36.1	35.8	35.9	35.7	35.8
	2	156	36.2	37.0	36.2	35.6	35.7	35.7	35.7
	3	157	36.2	37.2	36.3	36.0	35.7	35.6	35.6
	4	158	36.2	37.3	36.2	36.0	35.4	35.2	35.8
	5	162	36.2	37.2	36.4	35.9	35.6	35.4	36.1
	6	162	36.3	37.0	35.9	35.9	35.5	35.5	35.7
	7	160	36.4	37.1	36.5	35.8	35.7	35.5	35.8
	8	156	36.3	37.0	36.2	35.8	35.9	35.6	35.9
	9	158	36.4	37.2	36.1	36.0	36.0	35.9	36.0
	10	155	36.3	37.2	36.3	36.3	35.8	35.8	35.9
	Mean±S.E.M.	157.7±0.9	36.28±0.02	37.12±0.04	36.22±0.05	35.91±0.06	35.72±0.06	35.59±0.06	35.83±0.05

Group	Number	Weight (g)	Rectal temperature (°C)						
			Before yeast injection	After treatment					
				0 h	1 h	2 h	3 h	4 h	5 h
MEPS 50 mg/kg, p.o.	1	156	36.3	37.1	37.0	37.0	36.9	36.9	36.5
	2	150	36.3	36.9	37.1	37.2	37.0	36.8	36.8
	3	157	36.2	37.2	37.4	37.2	37.0	37.1	36.8
	4	163	36.3	37.0	37.0	37.1	36.9	37.0	37.0
	5	155	36.2	37.0	36.9	36.9	36.8	36.9	37.0
	6	155	36.4	37.2	37.0	37.1	37.0	36.9	36.9
	7	159	36.1	37.2	37.3	37.0	37.3	36.8	37.2
	8	150	36.3	37.3	37.3	36.9	37.1	37.1	37.3
	9	163	36.3	37.1	37.1	37.1	37.1	36.9	36.9
	10	149	36.4	37.2	37.1	37.2	37.1	37.0	37.0
	Mean±S.E.M.	155.7±1.6	36.28±0.03	37.12±0.04	37.12±0.05	37.07±0.04	37.02±0.04	36.94±0.03	36.94±0.07

Group	Number	Weight (g)	Rectal temperature (°C)						
			Before yeast injection	After treatment					
				0 h	1 h	2 h	3 h	4 h	5 h
MEPS 100 mg/kg, p.o.	1	162	36.3	37.2	37.2	37.0	36.9	36.8	36.7
	2	157	36.4	37.2	37.2	36.8	36.7	36.6	36.6
	3	155	36.3	37.0	37.0	37.0	36.7	36.7	36.7
	4	158	36.2	36.9	37.0	36.8	37.0	36.9	36.7
	5	164	36.3	37.1	37.3	36.9	37.2	37.1	36.9
	6	162	36.3	37.1	37.3	37.2	37.3	36.7	37.3
	7	160	36.3	37.3	37.3	37.0	37.1	36.9	37.0
	8	152	36.2	37.2	37.3	37.2	37.1	37.0	37.0
	9	154	36.3	37.1	37.2	36.8	37.0	36.9	36.9
	10	160	36.4	37.1	37.2	37.0	37.1	37.0	36.6
	Mean±S.E.M.	158.4±1.2	36.30±0.02	37.12±0.04	37.20±0.04	36.97±0.05	37.01±0.06	36.86±0.05	36.84±0.07

Group	Number	Weight (g)	Rectal temperature (°C)						
			Before yeast injection	After treatment					
				0 h	1 h	2 h	3 h	4 h	5 h
MEPS 200 mg/kg, p.o.	1	148	36.4	37.1	37.2	36.8	36.8	36.8	36.7
	2	155	36.3	37.0	37.5	37.2	36.9	36.9	36.7
	3	152	36.3	37.0	37.0	36.9	36.9	36.8	36.8
	4	152	36.3	37.0	37.0	36.8	36.7	36.6	36.7
	5	148	36.2	37.1	37.3	37.3	37.0	36.9	37.1
	6	149	36.3	37.0	37.3	37.1	37.3	37.0	37.1
	7	148	36.2	37.0	37.3	37.3	37.3	37.0	37.2
	8	155	36.3	37.3	37.2	37.0	36.9	36.7	36.5
	9	155	36.3	37.2	37.2	36.8	36.6	36.7	36.5
	10	154	36.3	37.2	37.0	37.0	36.7	37.0	36.7
	Mean±S.E.M.	151.6±1.0	36.29±0.02	37.09±0.03	37.20±0.05	37.02±0.06	36.91±0.08	36.84±0.05	36.80±0.08