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Marine-derived polysaccharides target the canonical NF-κB pathway to attenuate inflammation

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Supplementary Data

Suppl. Table S1 — Evaluation of NF-κB gene expression in formalin-induced paw oedema after treatment with bivalve-derived polysaccharides

S. No.	Sample	β Actin Ct (Mean ± SE)	NF ķB1 Ct (Mean ± SE)	ΔCt (Mean ± SE)	ΔΔCt	Fold change
1	Formalin + SCP @110 mg/kg	24.597±0.066	29.842±0.043	5.245±0.089	-1.16833	2.247519
2	Formalin + SCP @ 22 mg/kg	24.59±0.189	29.502±0.069	4.912±0.227	-1.50167	2.831697
3	Formalin + PVP @110 mg/kg	22.287±0.133	28.157±0.24	5.87±0.328	-0.54333	1.457336
4	Formalin + PVP @ 22 mg/kg	22.173±0.199	27.997±0.262	5.823±0.34	-0.59	1.505247
5	Formalin + PIP @110 mg/kg	23.662±0.115	29.315±0.113	5.653±0.2	-0.76	1.693491
6	Formalin + PIP @22 mg/kg	24.96±0.213	30.327±0.11	5.367±0.232	-1.04667	2.065751
7	Formalin + GEP @110 mg/kg	22.127±0.099	28.853±0.211	6.727±0.194	0.313333	0.80478
8	Formalin + GEP @ 22 mg/kg	21.477±0.079	27.84±0.368	6.363±0.403	-0.05	1.035265
9	Formalin + Indomethacin @10 mg/kg	23.585±0.146	30.19±0.148	6.605±0.143	0.191667	0.875594
10	Formalin alone	26.552±0.099	30.562±0.138	4.01±0.117	-2.40333	5.290241
11	Control	22.273±0.12	28.687±0.077	6.413±0.165	0	1

Suppl. Table S2 — Evaluation of TNF-α gene expression in formalin-induced paw oedema after treatment with bivalve-derived polysaccharides

S. No.	Sample	β Actin Ct (Mean ± SE)	TNF alpha Ct (Mean ± SE)	ΔCt (Mean ± SE)	ΔΔCt	Fold change
1	Formalin + SCP @110 mg/kg	24.597±0.066	29.842±0.043	6.333±0.224	-1.08167	2.11648
2	Formalin + SCP @ 22 mg/kg	24.59±0.189	29.502±0.069	6.317±0.22	-1.09833	2.141072
3	Formalin + PVP @110 mg/kg	22.287±0.133	28.157±0.24	7.277±0.248	-0.13833	1.100633
4	Formalin + PVP @ 22 mg/kg	22.173±0.199	27.997±0.262	6.455±0.378	-0.96	1.94531
5	Formalin + PIP @110 mg/kg	23.662±0.115	29.315±0.113	6.327±0.269	-1.08833	2.126283
6	Formalin + PIP @22 mg/kg	24.96±0.213	30.327±0.11	6.347±0.452	-1.06833	2.097009
7	Formalin + GEP @110 mg/kg	22.127±0.099	28.853±0.211	7.448±0.244	0.033333	0.97716
8	Formalin + GEP @ 22 mg/kg	21.477±0.079	27.84±0.368	7.33±0.184	-0.085	1.060688
9	Formalin + Indomethacin @10 mg/kg	23.585±0.146	30.19±0.148	5.92±0.38	0.805	0.572362
10	Formalin alone	26.552±0.099	30.562±0.138	5.118±0.451	-2.29667	4.913213
11	Control	22.273±0.12	28.687±0.077	7.415±0.223	0	1

Suppl. Table S3 — Evaluation of IL-6 gene expression in formalin-induced paw oedema after treatment with bivalve-derived polysaccharides

S. No.	Sample	β Actin Ct (Mean ± SE)	IL-6 Ct (Mean ± SE)	ΔCt (Mean ± SE)	ΔΔCt	Fold change
1	Formalin + SCP @110 mg/kg	24.597±0.066	31.367±0.267	6.77±0.305	-1.12	2.17347
2	Formalin + SCP @ 22 mg/kg	24.59±0.189	31.158±0.197	6.568±0.193	-1.32167	2.499547
3	Formalin + PVP @110 mg/kg	22.287±0.133	30.12±0.645	7.833±0.643	-0.05667	1.04006
4	Formalin + PVP @ 22 mg/kg	22.173±0.199	29.758±0.507	7.585±0.528	-0.305	1.235419
5	Formalin + PIP @110 mg/kg	23.662±0.115	30.31±0.235	6.648±0.321	-1.24167	2.364716
6	Formalin + PIP @22 mg/kg	24.96±0.213	31.837±0.393	6.877±0.379	-1.01333	2.01857
7	Formalin + GEP @110 mg/kg	22.127±0.099	30.035±0.343	7.908±0.343	0.018333	0.987373
8	Formalin + GEP @ 22 mg/kg	21.477±0.079	29.213±0.268	7.737±0.31	-0.15333	1.112136
9	Formalin + Indomethacin @10 mg/kg	23.585±0.146	31.538±0.078	7.953±0.165	0.063333	0.95705
10	Formalin alone	26.552±0.099	31.635±0.424	5.083±0.406	-2.80667	6.996661
11	Control	22.273±0.12	30.163±0.157	7.89±0.202	0	1

Suppl. Table S4 — Evaluation of COX-2 gene expression in formalin-induced paw oedema after treatment with bivalve-derived polysaccharides

S. No.	Sample	β Actin Ct ((Mean ± SE)	COX2 Ct (Mean ± SE)	ΔCt (Mean ± SE)	ΔΔCt	Fold change
1	Formalin + SCP @110 mg/kg	29.985±0.229	6.77±0.305	5.388±0.257	-0.86	1.815038
2	Formalin + SCP @ 22 mg/kg	30.017±1.554	6.568±0.193	5.427±1.643	-0.82167	1.767447
3	Formalin + PVP @110 mg/kg	28.513±0.203	7.833±0.643	6.227±0.244	-0.02167	1.015132
4	Formalin + PVP @ 22 mg/kg	28.352±0.247	7.585±0.528	6.178±0.249	-0.07	1.049717
5	Formalin + PIP @110 mg/kg	29.823±0.245	6.648±0.321	6.162±0.329	-0.08667	1.061914
6	Formalin + PIP @22 mg/kg	30.647±0.325	6.877±0.379	5.687±0.302	-0.56167	1.475973
7	Formalin + GEP @110 mg/kg	28.585±0.169	7.908±0.343	6.458±0.142	0.21	0.864537
8	Formalin + GEP @ 22 mg/kg	27.658±0.393	7.737±0.31	6.182±0.402	-0.06667	1.047294
9	Formalin + Indomethacin @10 mg/kg	30.253±0.345	7.953±0.165	6.668±0.368	0.42	0.747425
10	Formalin alone	30.41±0.142	5.083±0.406	3.858±0.196	-2.39	5.241574
11	Control	28.522±0.308	7.89±0.202	6.248±0.3	0	1

Table S5 — Evaluation of iNOS gene expression in formalin-induced paw oedema after treatment with bivalve-derived polysaccharides

S. No.	Sample	β Actin Ct (Mean ± SE)	iNOS Ct (Mean ± SE)	ΔCt (Mean ± SE)	ΔΔCt	Fold change
1	Formalin + SCP @110 mg/kg	24.597±0.066	28.34±0.055	3.743±0.08	-1.43167	2.697582
2	Formalin + SCP @ 22 mg/kg	24.59±0.189	28.378±0.144	3.788±0.125	-1.38667	2.614738
3	Formalin + PVP @110 mg/kg	22.287±0.133	26.24±0.234	3.953±0.239	-1.22167	2.33216
4	Formalin + PVP @ 22 mg/kg	22.173±0.199	26.547±0.343	4.373±0.497	-0.80167	1.743114
5	Formalin + PIP @110 mg/kg	23.662±0.115	22.173±0.199	-1.488±0.303	-1.93284	3.818069
6	Formalin + PIP @22 mg/kg	24.96±0.213	28.743±0.082	3.783±0.187	-1.39167	2.623816
7	Formalin + GEP @110 mg/kg	22.127±0.099	27.303±0.112	5.177±0.163	0.001667	0.998845
8	Formalin + GEP @ 22 mg/kg	21.477±0.079	26.943±0.22	5.467±0.167	0.291667	0.816958
9	Formalin + Indomethacin @10 mg/kg	23.585±0.146	28.855±0.142	5.27±0.231	0.095	0.936272
10	Formalin alone	26.552±0.099	29.54±0.335	2.988±0.38	-2.18667	4.552524
11	Control	22.273±0.12	27.448±0.082	5.175±0.081	0	1