

Supplementary Materials

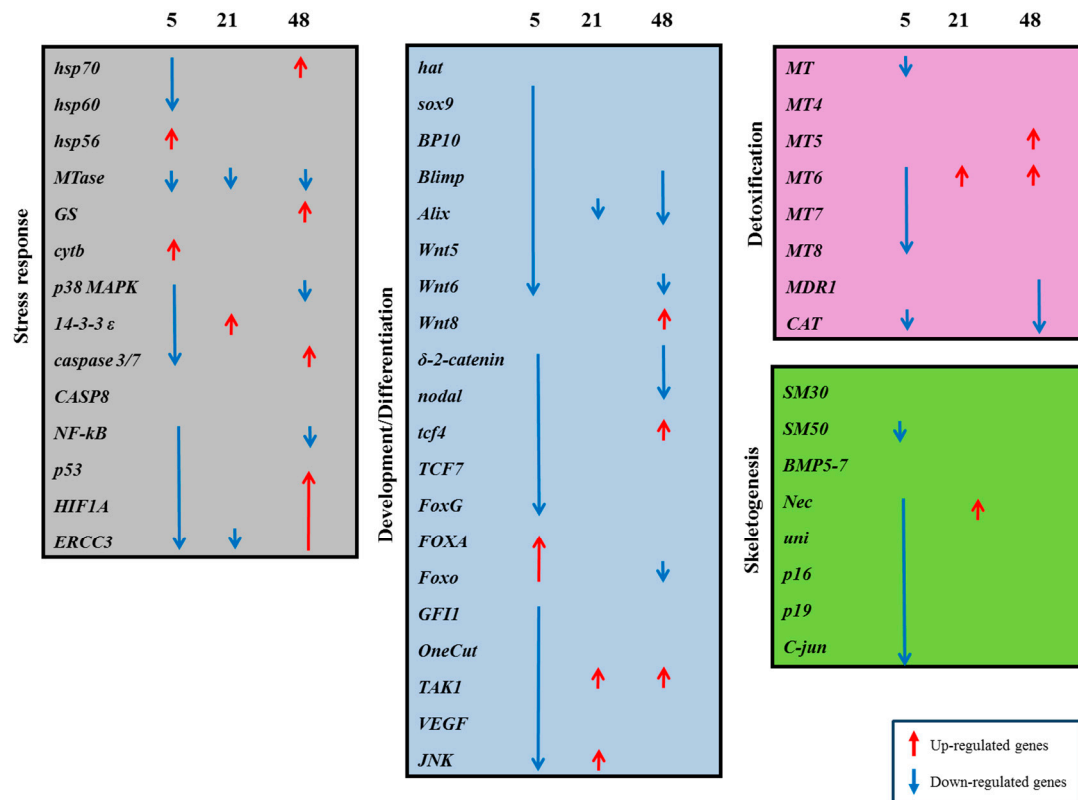


Figure S1. Synopsis of the patterns of up- and downregulation of different classes of genes in the sea urchin *P. lividus* in the presence of 5-, 9-, 11- and 15-HEPE mixture at 2.8 μ M.

Table S1. Data of expression levels were reported as a fold difference from control at blastula (5 hpf), gastrula (21 hpf) and pluteus (48 hpf) after treatment with 5- 9-, 11- and 15-HEPE mixture at 2.8 μ M. Fold differences greater than ± 2 were considered significant.

	Blastula	Gastrula	Pluteus
Stress Response			
<i>hsp70</i>	-4.4	1.2	4.3
<i>hsp60</i>	-3.3	0.7	-0.2
<i>hsp56</i>	2.4	1.7	1.9
<i>Mtase</i>	-4.0	-2.1	-3.0
<i>GS</i>	1.8	1.7	2.1
<i>cytb</i>	2.3	0.9	1.6
<i>p38 MAPK</i>	-7.1	-1.6	-6.5
<i>14-3-3E</i>	-6.7	2.6	-1.6
<i>caspase 3/7</i>	-2.8	-0.6	2.3
<i>caspase-8</i>	0.6	-1.3	1.3
<i>NF-KB</i>	-2.0	0.5	-2.9
<i>P53</i>	-7.5	0.0	2.4
<i>HIF1A</i>	-3.4	1.7	2.5
<i>ERCC3</i>	-2.9	-3.0	3.7
Skeletogenesis			
<i>SM30</i>	0.0	0.0	-0.9
<i>SM50</i>	-4.5	0.3	-0.1
<i>BMP5/7</i>	-2.0	1.4	1.0
<i>Nec</i>	-2.7	2.2	1.2
<i>uni</i>	-2.5	1.5	-1.8
<i>p16</i>	-2.2	0.4	0.3
<i>p19</i>	-3.0	0.7	0.4
<i>Jun</i>	-2.3	0.7	0.7
Development/Differentiation			
<i>hat</i>	-0.9	-1.3	-0.7
<i>sox9</i>	-3.5	-1.2	1.9
<i>BP10</i>	-2.1	1.1	1.4
<i>Blimp</i>	-2.6	-0.1	-6.5
<i>Alix</i>	-3.8	-3.8	-4.5
<i>Wnt5</i>	-2.7	0.0	-1.2
<i>Wnt6</i>	-2.8	-0.5	-2.5
<i>Wnt8</i>	1.2	0.6	2.0
<i>δ-2-catenin</i>	-2.3	1.8	-2.6
<i>Nodal</i>	-2.5	1.1	-4.6
<i>tcf4</i>	-5.2	-1.1	3.1
<i>TCF7</i>	-2.0	0.3	-1.8
<i>FoxG</i>	-3.2	-0.5	-1.2
<i>FoxA</i>	3.5	0.5	-1.2
<i>Fox0</i>	4.1	1.0	-3.0
<i>GFI1</i>	-2.5	0.7	-0.6

<i>Onecut</i>	-2.1	1.2	0.7
<i>TAK1</i>	-3.5	3.9	5.0
<i>VEGF</i>	-2.2	-0.9	-1.8
<i>JNK</i>	-3.0	2.0	-0.5
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Detoxification			
<i>MT</i>	-2.8	0.5	0.2
<i>MT4</i>	-1.7	0.7	-1.7
<i>MT5</i>	-0.4	1.2	2.3
<i>MT6</i>	-3.8	2.1	2.0
<i>MT7</i>	-2.7	0.7	-0.8
<i>MT8</i>	-8.3	1.7	-1.8
<i>MDRI</i>	0.1	1.6	-6.0
<i>CAT</i>	-2.5	0.6	-4.9