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Supporting Information

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Spatial Regulation of *lag-2* Transcription During Vulval Precursor Cell Fate Patterning in *Caenorhabditis elegans*

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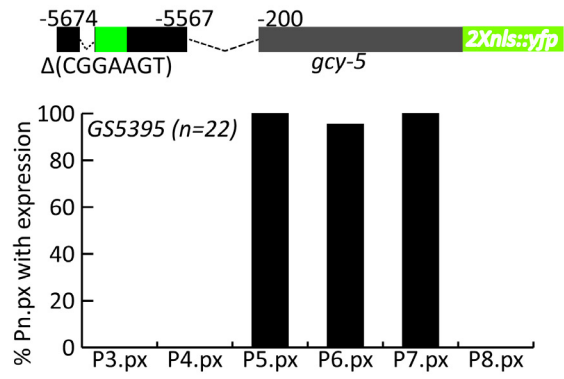


Figure S1 Deletion of ELK1 motif in *lag-2* heterologous promoter (Fig. 2J) causes ectopic expression in all VPCs.

Table S1 Primer sets used for fusion PCR

Strain	Array	Primer
<i>GS4229</i>	<i>arEx763</i>	A=TGTCAGAATGTCCCATGTAGG
<i>GS4230</i>	<i>arEx764</i>	B=AGTCGACCTGCAGGCATGCAAGCTGGCAAATTTGAAAAGTGTGTTG
<i>GS4892</i>	<i>arIs131</i>	A*=GATTGATCTCCGTAAATGGC
<i>GS4276</i>	<i>arEx791</i>	A=TTGATTATATCTCGGTTCAATTTGG B=AGTCGACCTGCAGGCATGCAAGCTGGCAAATTTGAAAAGTGTGTTG
<i>GS4277</i>	<i>arEx792</i>	A*=AACGGCCAACCTCTGATAGAGTAGG
<i>GS4251</i>	<i>arEx774</i>	5F=TGTCAGAATGTCCCATGTAGG 5R=CGAGCTTTTGGGGAATTTTAAAGACAATCGCAGATTTTCGGCAGTTGCA 3F=TCTTTAAAATTCCCCAAAAGCTCG)
<i>GS4254</i>	<i>arEx776</i>	3R=GACTGGGAGGCAGGTGAGGA A=GATTGATCTCCGTAAATGGC
<i>GS4255</i>	<i>arEx777</i>	B=AGTCGACCTGCAGGCATGCAAGCTGGCAAATTTGAAAAGTGTGTTG A*= ATTCTAAACAGATTTTCGGATGG 5F=TATTTCAATCAAGTCTTGGTCAATA
<i>GS4458</i>	<i>arEx869</i>	5R=CGAGCTTTTGGGGAATTTTAAAGACAATCGCAGATTTTCGGCAGTTGCA 3F=TCTTTAAAATTCCCCAAAAGCTCG 3R=GACTGGGAGGCAGGTGAGGA A=TCCTTGCATAATTATAGAGGCGATG
<i>GS4477</i>	<i>arEx870</i>	B=AGTCGACCTGCAGGCATGCAAGCTGGCAAATTTGAAAAGTGTGTTG A*= GGAAGGGAGGCGGAAGTGGTTGA 5F=CTCAGAATCATAACTCTGTAATATGTTGACACCTGCCCGCTCGCCTAAATC
<i>GS4964</i>	<i>arEx1034</i>	5R=CAATCGCAGATTTTCGGCAGTTGCA 3F=TGCAACTGCCGAAATCTGCGATTGCTCAAATAAATGTCCAGAAATTTAC
<i>GS4965</i>	<i>arEx1035</i>	3R=AGTCGACCTGCAGGCATGCAAGCTGGCAAATTTGAAAAGTGTGTTG

A=GGAAGGGAGGCGGAAGTGGTTGA

GS5008 *arEx1063* B=AGTCGACCTGCAGGCATGCAAGCTGGCAAATTTGAAAAGTGTGTTG

A*=GGAAGGGAGGCGGAAGTGGTTGA

GS5067 *arEx1085* 5F=CTCAGAATCATAACTCTGTAATATGTTGACACCTGCCCCGCTCGCCTAAATC

5R=CAATCGCAGATTCGGCAGTTGCA

3F=TGCAACTGCCGAAATCTGCGATTGGTAGATTTTTTCTCGCCGTTATG

GS5068; *arEx1086* 3R=AGTCGACCTGCAGGCATGCAAGCTGGCAAATTTGAAAAGTGTGTTG

A=GGAAGGGAGGCGGAAGTGGTTGA

GS5069 *arEx1087* B=AGTCGACCTGCAGGCATGCAAGCTGGCAAATTTGAAAAGTGTGTTG

A*=GGAAGGGAGGCGGAAGTGGTTGA

Table S2 Primer sets used for fusion PCR for p847 and p849

Plasmid	Primer set
P847	5F- <u>PstI</u> =GCATGCCTGCAGGGAAGGGAGGCGGAAGTGGTTGA
	5R=TGACACCCACCCCGGGTGTGTCACTGATCAAGGAGACAAATATTTTCGGTGAGAGTTTCA
	3F=TGAAAACCTCACCGAAAATATTTGGTAGATTTTTTCTCGCCGTTATG
	3R- <u>KpnI</u> =GAGCTCGGTACCCGGGTTTCTGAAAAAAGGCAAATTTGAAAAGT
P849	5F- <u>PstI</u> =GCATGCCTGCAGGGAAGGGAGGCGGAAGTGGTTGA
	5R=TGAAAACCTCACCGAAAATATTTGGCAGATACCAACAAGATTA AAAAC
	3F=GCAGATACCAACAAGATTA AAAAC
	3R- <u>KpnI</u> =GAGCTCGGTACCCGGGTTTTCATCAGAATAAGTAATTTTTCG

Table S3 Plasmids and arrays derived using PCR product from the plasmids

Plasmid	Promoter in the plasmid	Strains (Array)
p847	<i>lag-2p(min)</i>	<i>GS5095(arEx1097)</i> , <i>GS5096(arEx1098)</i> , <i>GS5097(arEx1099)</i>
p851	<i>lag-2p(min)Δ(-5655...-5636)^a</i>	<i>GS5443(arEx1227)</i> , <i>GS5444(arEx1228)</i>
p852	<i>lag-2p(min)Δ(-5645...-5626)^a</i>	<i>GS5560(arEx1275)</i> , <i>GS5561(arEx1276)</i>
p853	<i>lag-2p(min)Δ(-5635...-5616)^a</i>	<i>GS5353(arEx1176)</i> , <i>GS5354(arEx1177)</i>
p854	<i>lag-2p(min)Δ(-5625...-5606)^a</i>	<i>GS5355(arEx1178)</i> , <i>GS5365(arEx1179)</i> , <i>GS5366(arEx1180)</i>
p855	<i>lag-2p(min)Δ(-5615...-5596)^a</i>	<i>GS5548(arEx1263)</i> , <i>GS5549(arEx1264)</i> , <i>GS5550(arEx1265)</i> , <i>GS5551(arEx1266)</i>
p856	<i>lag-2p(min)Δ(-5605...-5586)^a</i>	<i>GS5557(arEx1272)</i> , <i>GS5559(arEx1279)</i>
p857	<i>lag-2p(min)Δ(-5595...-5576)^a</i>	<i>GS5552(arEx1267)</i> , <i>GS5553(arEx1268)</i>
p858	<i>lag-2p(min)Δ(-5585...-5567)^a</i>	<i>GS5554(arEx1269)</i> , <i>GS5555(arEx1270)</i> , <i>GS5556(arEx1271)</i>
p860	<i>lag-2p(min)(C to A at -5648 and T to A at -5644)</i>	<i>GS5845(arEx1357)</i> , <i>GS5846 arEx1358)</i> , <i>GS5847(arEx1359)</i> , <i>GS5848 arEx1360)</i>
p861	<i>lag-2p(min)ΔVPCrep</i>	<i>GS5425(arEx1213)</i> , <i>GS5426(arEx1214)</i> , <i>GS5427(arEx1215)</i>
p849	<i>lag-2p(-5674...-5567) + gcy-5p(-200...-1)</i>	<i>GS5391(arEx1192)</i> , <i>GS5393(arEx1193)</i> , <i>GS5394(arEx1194)</i> <i>GS5431(arEx1218)^b</i> , <i>GS5432(arEx1219)^b</i> , <i>GS5433(arEx1220)^b</i>

^a A *Bam*HI site(GGATCC) was inserted at the position of deletion.

^bStrains were made using PCR product containing only *gcy-5p(-200...-1)::2Xnls-yfp*