Drug	Class	Manufacturer	Conc. In experiment
CP-615003-27	GABA-A antagonist	Pfizer	40 μM
Picrotoxin	GABA-A antagonist	Tocris	100 μM
TPMPA	GABA-A antagonist	Tocris	100 μM
GABA	GABA-A agonist	Sigma-Aldrich	50 mM
GABOB	GABA-A agonist	Sigma-Aldrich	100 μM
L, 838-417	GABA-A partial agonist	Tocris	100 μM
MK 0343	GABA-A partial agonist	Tocris	100 μM
CI-966 HCL	GABA uptake inhibitor	Tocris	20 μM

Table S1: List of GABA-A receptor pharmacology used in the study. Each drug was obtained from the indicated manufacturer and handled according to vendor guidelines.

Primer	Sequence (5' – 3')
gabrr1 guide RNA	ggatgaaggagcgcttggag
pT7-gRNA oligo:*gabrr1*	aattaatacgactcactataggatgaaggagcgcttggaggttttagagctagaaatagc
gabrr1 genotype_Hpy166II_F	tggacgggattaaactgagc
gabrr1 genotype_Hpy166II_R	aaaatgcaagacccggagat
gabrr1 sequencing primer F	ctgtgttatcagcagtaagcg
gabrr1 sequencing primer R	gggcagctgtaaaatcagagt
gabrr1 cDNA cloning_Pac1_F	ggcgatcgcttaattaatgttgagggaaagacagctcca
gabrr1 cDNA cloning_Pac1_R	cctgcaggttaattaatcactgtgagtagatggaccagt

Table S2: Sequences of primers and oligos used in the study. Each primer or oligo was purchased from Integrated DNA Technologies (IDT).

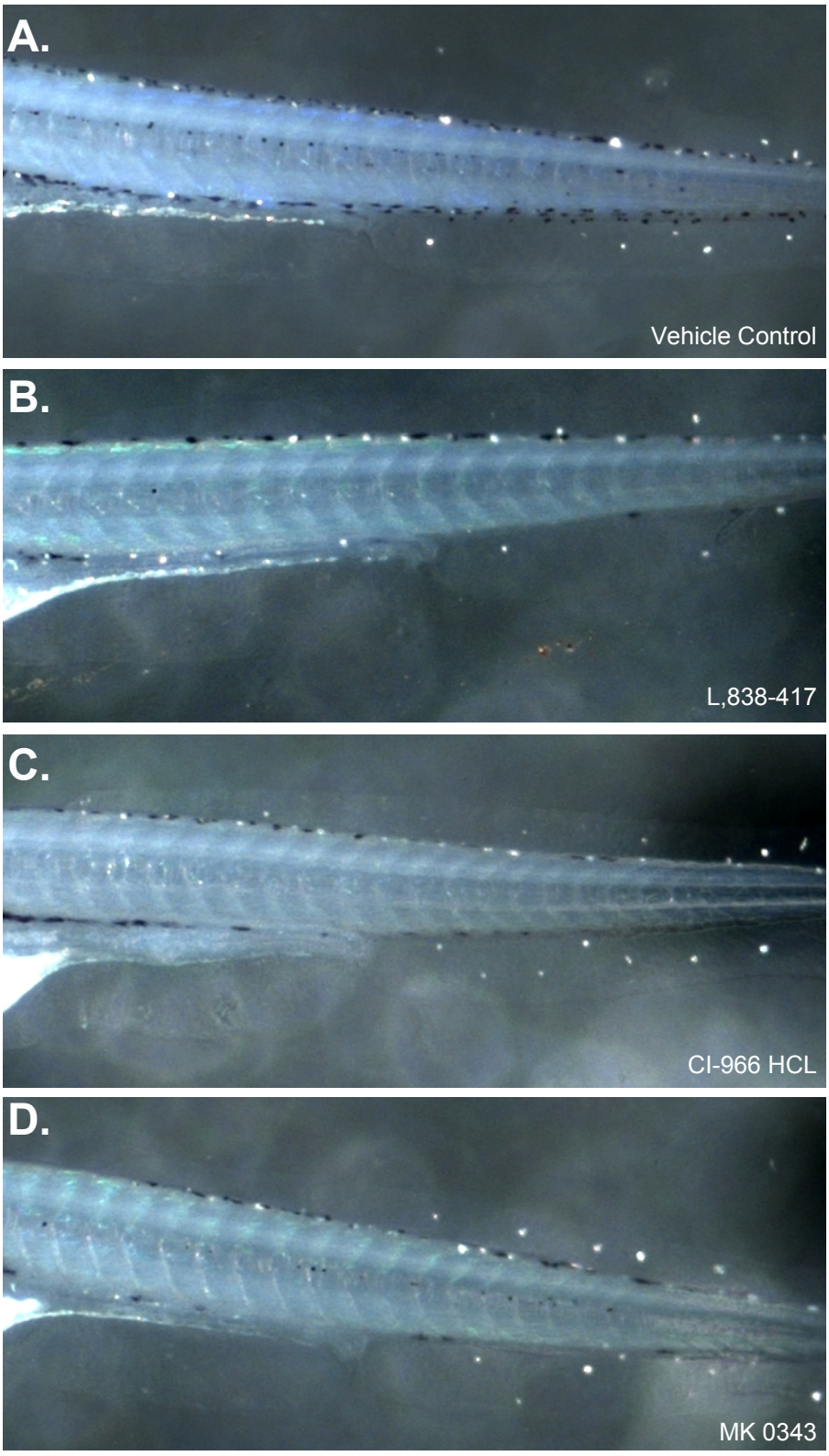

Figure S1: Pharmacological activation of GABA-A reduces larval pigmentation across the body. (A-D) Images of representative *mitfa*^{vc7} 7 dpf larvae treated with vehicle control (A), L,838-417 (B), CI-966 HCL (C), and MK 0343 (D).

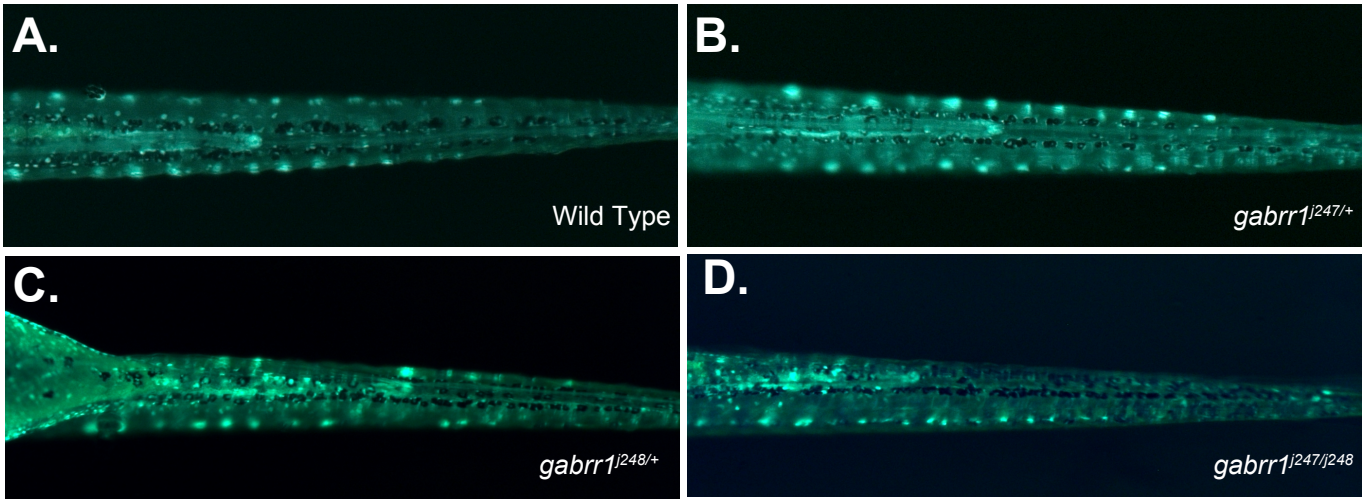

Figure S2: *gabrr1* mutations have no visible effect on ventral pigmentation. (A-D) Images of representative 6 dpf wild-type (A), *gabrr1*$^{j247/+}$ (B), *gabrr1*$^{j248/+}$ (C), and *gabrr1*$^{j247/j248}$(D) larvae.

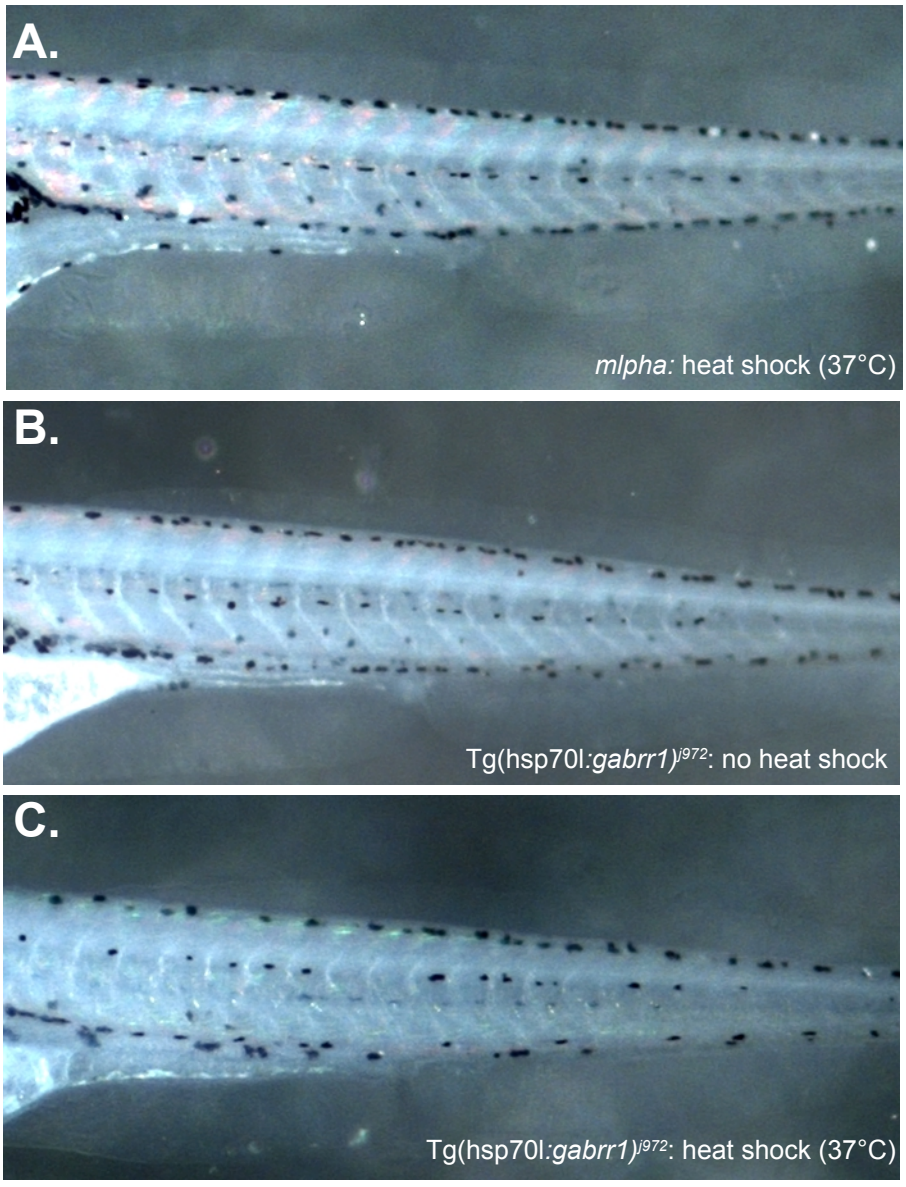

Figure S3: Over-expression of *gabrr1* partially reduces ventral pigmentation. (A-C) Images of representative 6 dpf heat shocked *mlpha* (A), Tg(hsp70l:*gabrr1*)^{j972} (B), and Tg(hsp70l:*gabrr1*)^{j972} + heat shock (C).