

Table S1. Left-right patterning defects in individual sea strains

Genotype	ID#	DOB	n	Visceral organ asymmetry (%)		
				SS	SI	Heterotaxic
<i>sea</i> ^{tg238a} siblings (+/+, +/-)	SK12673-5	21-Mar-01	54	100	–	–
<i>sea</i> ^{tg238a} –/–	SK12673-5	21-Mar-01	71	92	4	4
<i>sea</i> ^{tg238a} siblings (+/+, +/-)	PR1017 (JB2)	11-Mar-03	32	100	–	–
<i>sea</i> ^{tg238a} –/–	PR1017 (JB2)	11-Mar-03	139	92	4	4
<i>sea</i> ^{tg238a} siblings (+/+, +/-)	PR1308-9	4-Feb-05	24	100		
<i>sea</i> ^{tg238a} –/–	PR1308-9	4-Feb-05	77	79	13	8
<i>sea</i> ^{tg238a} siblings (+/+, +/-)	PR1722-3	20-May-06	196	98	1	1
<i>sea</i> ^{tg238a} –/–	PR1722-3	20-May-06	115	93	–	7
<i>sea</i> ^{tg238a} siblings (+/+, +/-)	PR1722-3 (C)	20-May-06	120	98	–	2
<i>sea</i> ^{tg238a} –/–	PR1722-3 (C)	20-May-06	27	74	4	22
<i>sea</i> ^{fa20r} (+/+, +/-)	BO14687	21-Nov-02	104	95	5	–
<i>sea</i> ^{fa20r} (–/–)	BO14687	21-Nov-02	53	75	25	–
<i>sea</i> ^{fa20r} (+/+, +/-)	PR1724	20-May-06	181	100	–	–
<i>sea</i> ^{fa20r} (–/–)	PR1724	20-May-06	152	94	1	5
<i>sea</i> ^{fa20r} (+/+, +/-)	PR1724 (M21)	20-May-06	115	100	–	–
<i>sea</i> ^{fa20r} (–/–)	PR1724 (M21)	20-May-06	43	98	2	–

ID# refer to strain identifying numbers used in the laboratory. Designations in parentheses refer to a single pair of identified heterozygotes used to produce the clutch. In all other cases, embryos were generated from multiple identified heterozygotes from that strain. DOB refers to the date the strain was born. PR1724 (M21) and PR1722-3 (C) were used to produce the embryos analyzed for flow in Kupffer’s vesicle (Table 5). The data presented here were averaged to produce the left-right phenotype numbers presented in Table 2. Note that the effect on left-right patterning can be highly variable from strain to strain and from pair to pair. For example, when this mutation is put into a TL background or if heterozygous parents are over 2 years old, we have seen percentages as high as 46% that we have never observed with younger parents or in non-TL backgrounds.