

Table S2. Analysis of asymmetric molecular markers and location of visceral organs in αV and $\beta 1b$ morphants

Marker	Location	Morpholino	mRNA	n_T	n_{exp}	Left	Right	Middle/Bilateral	Absent	
<i>spaw</i>	LPM	Uninjected	–	163	4	80.9±5.3%	8.6±3.9%	10.6±3.2%	0%	
		5.00 ng control MO	–	51	2	71.7±6.9%	13.0±5.9%	15.3±1.0%	0%	
		1.50 ng $\alpha V1miss$	–	23	2	67.8±12.2%	21.1±1.1%	11.1±11.1%	0%	
		1.25 ng $\alpha V1$	–	50	3	42.7±3.3%	42.5±1.0%	11.8±1.0%	3.0±3.0%	
		5.00 ng $\alpha VE110$	–	156	6	51.9±3.4%	13.4±4.9%	28.2±2.5%	6.5±3.4%	
		0.50 ng $\beta 1b1$	–	256	6	71.7±7.0%	11.1±2.9%	13.3±2.9%	3.9±2.4%	
		5.00 ng $\beta 1bE110$	–	118	5	49.9±8.6%	13.4±3.3%	22.3±5.2%	13.7±4.2%	
		5.00 ng $\beta 1bE110$ + 0.50 ng $\beta 1b1$	–	96	2	37.7±2.0%	15.3±8.2%	31.0±11.9%	18.9±4.6%	
<i>lft2</i>	heart	Uninjected	–	474	6	83.7±5.4%	3.4±1.8%	2.8±1.5%	2.8±1.1%	
		5.00 ng control MO	–	251	3	76.4±0.3%	12.2±4.6%	6.4±2.9%	5.0±5.0%	
		1.25 ng $\alpha V1$	–	339	2	34.5±4.2%	21.3±1.3%	17.3±6.1%	27.0±11.6%	
		5.00 ng $\alpha VE110$	–	90	2	63.2±7.6%	18.1±3.5%	0%	18.8±3.5%	
		5.00 ng $\beta 1bE110$	–	68	2	65.7±12.7%	13.7±9.8%	2.0±2.0%	15.7±7.8%	
<i>vtn</i>	liver	Uninjected	–	499	8	82.4±2.0%	6.9±1.2%	10.4±1.9%	0.2±0.2%	
		2.50 ng control MO	–	351	5	85.9±4.7%	11.6±4.5%	2.1±1.1%	0.4±0.3%	
		None	200 pg $m\alpha V$	122	3	72.8±3.1%	12.8±4.0%	11.8±4.4%	2.6±1.3%	
		1.25 ng $\alpha V1$	–	616	10	46.5±3.3%	30.5±3.4%	11.0±2.2%	12.0±2.5%	
		1.25 ng $\alpha V1$	+	200 pg $m\alpha V$	211	6	63.6±6.5%	18.0±2.1%	8.5±3.1%	9.9±4.2%
		1.75 ng $\alpha V2$	–	84	3	45.2±9.3%	14.0±7.0%	0%	45.9±4.5%	
		1.75 ng $\alpha V2$	+	200 pg $m\alpha V$	73	1	61.6%	11.0%	4.1%	23.3%
		0.70 ng $\beta 1b1$	–	182	4	38.4±11.4%	14.6±5.7%	8.2±3.4%	38.8±15.6%	
		5.00 ng $\beta 1bE110$	–	64	3	55.4±2.9%	24.1±8.1%	0%	20.5±10.7%	
		5.00 ng $\beta 1bE110$ + 0.70 ng $\beta 1b1$	–	53	3	1.9±1.9%	0%	0%	98.1±1.9%	
<i>pdx1</i>	pancreas	Uninjected	–	463	7	10.8±2.4%	85.8±2.2%	3.2±1.5%	0.2±0.2%	
		2.50 ng control MO	–	351	5	13.3±4.7%	85.6±4.4%	0.5±0.5%	0.6±0.6%	
		None	200 pg $m\alpha V$	122	3	16.5±3.9%	78.1±2.5%	3.9±2.9%	1.6±1.6%	
		1.25 ng $\alpha V1$	–	616	10	35.8±4.4%	46.2±4.1%	6.2±1.8%	11.8±2.8%	
		1.25 ng $\alpha V1$	+	200 pg $m\alpha V$	211	6	23.5±3.2%	62.9±5.7%	9.4±2.0%	4.7±2.5%
		1.75 ng $\alpha V2$	–	84	3	14.1±7.1%	55.6±6.9%	0%	30.4±6.4%	
		1.75 ng $\alpha V2$	+	200 pg $m\alpha V$	73	1	21.9%	69.9%	2.7%	5.5%

MOs and mRNAs were injected into 1- to 4-cell-stage wild-type embryos. Location of molecular markers or organ primordia was examined with WISH analysis. Data were expressed as the number of embryos with specific marker/organ location divided by the total number of embryos used per experiment multiplied by 100 (%) \pm s.e.m. n_{exp} =number of experimental repeats. n_T =total number of embryos.