

Table S1. Convergence and extension (C&E) and epiboly phenotypes caused by injection of RNA/morpholinos in wild-type and *ord* embryos

Genotype	Injection	C&E (%)				n	Epiboly	n
		Wild type	Weak	Strong	Strong*			
Wild type	-	100	-	-	-	59	-	-
Wild type	<i>celsr1a/1bMO</i> (0.4 pmoles each)	28	72	-	-	74	-	-
Wild type	Lyn-Celsr RNA (0.02 ng)	83	15	2	-	82	-	-
Wild type	Lyn-Celsr RNA (0.1 ng)	13	25	62	-	178	-	-
Wild type	Lyn-Celsr RNA (0.3 ng)	-	-	-	-	-	0	33
Wild type	Lyn-Celsr-Venus RNA (0.05 ng)	5	35	60	-	105	-	-
Wild type	Lyn-Celsr-Δ-Venus RNA (0.1 ng)	88	8	4	-	119	-	-
Wild type	Celsr-ΔC-HA RNA (0.15 ng)	74	16	-	10	38	27	60
Wild type	Celsr-ΔC-HA RNA (0.3 ng)	15	53	-	32	80	73	70
Wild type	Celsr-ΔN-Venus RNA (0.1 ng)	62	24	14	-	111	3	33
Wild type	Celsr-ΔN-Venus RNA (0.3 ng)	46	21	30	3	71	4	23
Wild type	<i>stbmMO</i> (0.5 pmoles)	50	50	-	-	58	-	-
Wild type	<i>dvl2MO</i> (0.75 pmoles)	72	27	1	-	97	-	-
<i>Mord</i>	-	-	-	-	-	-	4	25
<i>Mord</i>	<i>celsr1a/1bMO</i> (0.4 p moles each)	-	-	-	-	-	58	74
<i>MZord</i>	-	94	6	-	-	72	4	53
<i>MZord</i>	<i>celsr1a/1bMO</i> (0.4 p moles each)	25	65	-	10	52	80	40
<i>MZord</i>	Lyn-Celsr RNA (0.02 ng)	7	5	88	-	164	0	33
<i>MZord</i>	Celsr-ΔC-HA RNA (0.15 ng)	-	-	-	-	-	62	108
<i>MZord</i>	<i>stbmMO</i> (0.5 pmoles)	2	13	85	-	140	3	35
<i>MZord</i>	<i>dvl2MO</i> (0.75 pmoles)	2	11	86	-	119	5	39

C&E phenotypes were scored at tail-bud after *in situ* hybridisation with a mixture of *hgg1*, *ntl* and *dlx3* according to the images below. Upper panels, dorsal views; lower panels, lateral views.

C&E-Weak (a slightly thicker notochord and a slightly posteriorly-positioned prechordal plate when compared with wild type).

C&E-Strong (a thick notochord and posteriorly positioned prechordal plate).

C&E-Strong* (epiboly phenotype is associated with the strong C&E).

Epiboly phenotypes are defined by retraction of deep cells from the leading edge of the YSL using α - or β -catenin antibody (see Fig. 1H,J). The positions of the prechordal plate and tailbud are indicated by arrowheads. The shifted germ ring expression of *ntl* due to the epiboly defect is indicated by arrows.

