

Table S2. Quantified dynamics of punctuated F-actin contractions in *Xfz7*-expressing cells (means±s.d.)

	Early mesoderm		Animal cap ectoderm	
	control	<i>Xfz7</i>	control	<i>Xfz7</i>
# of explants	4	4	3	3
# of cells	12	12	15	15
Cell shape (LTW)	2.11±0.84	1.51±0.22	1.35±0.25	1.77±0.45
Contractile area (%)	41±13	37±11	18±16	45±10
Rate of contractions (#/hr)	40.5	36.5	8.8	40.8
Life span (min) per Contraction	2.53±2.08	4.40±3.43	2.24±2.05	2.36±2.08
Distance (μm) per Contraction	12.88±12.79	20.78±18	9.56±7.33	12.24±11.46