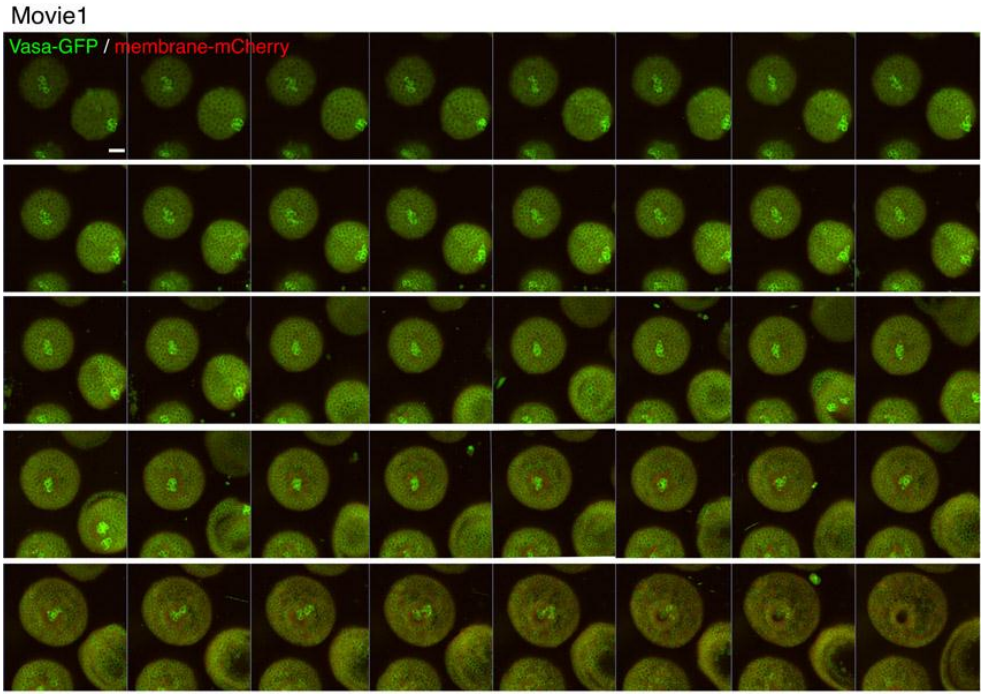

Fig. S1. Time-lapse imaging from morula (7 hPF) to blastula (24 hPF) stage. SMic descendants were labeled by Vasa-GFP (arrows) and the entire embryo was labeled by membrane-mCherry. Images were captured every 25 minutes. Scale bar: 20 μm.

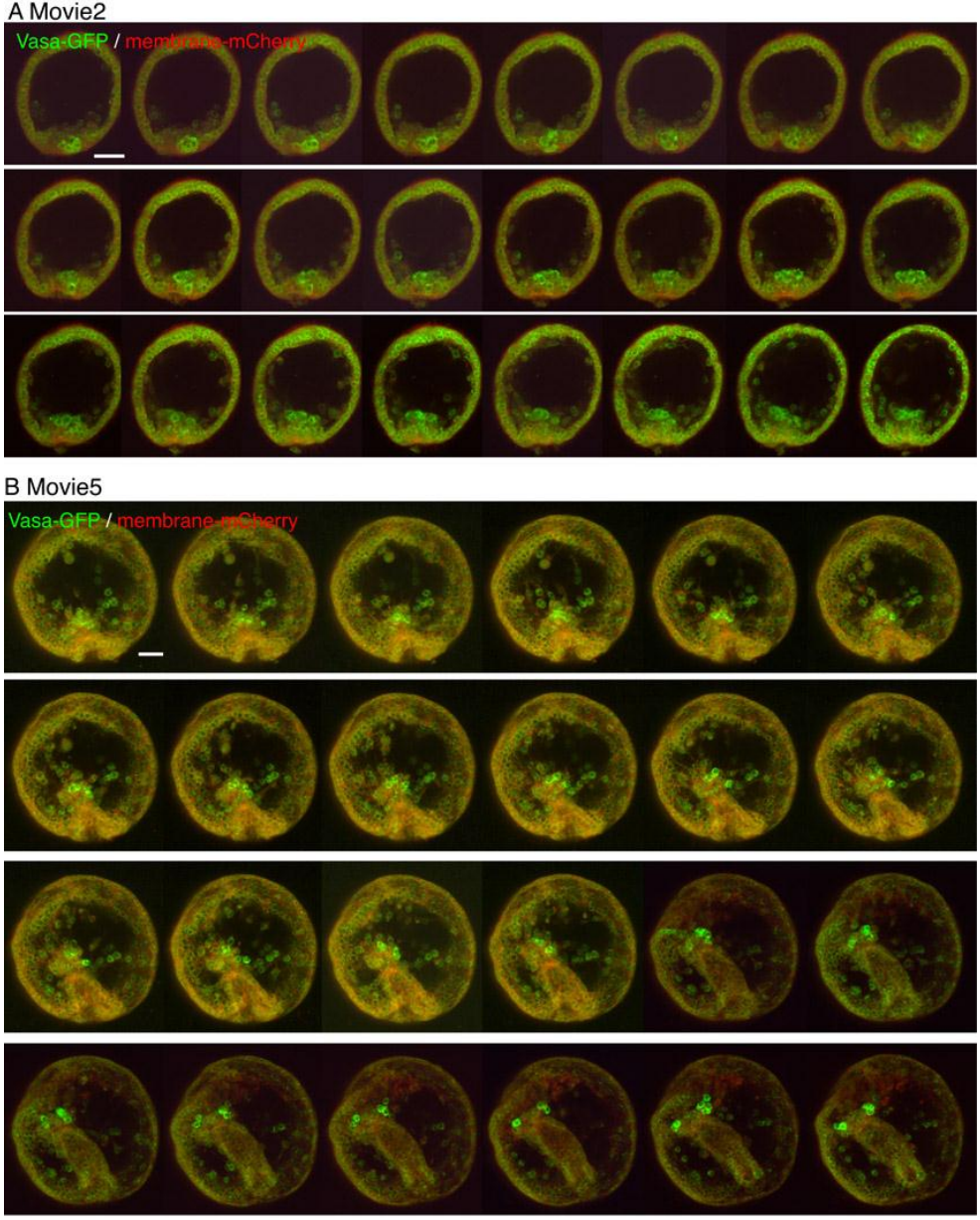

Fig. S2. Time-lapse imaging of gastrulation. SMic descendants were labeled by Vasa-GFP (arrows) and the entire embryo was labeled by membrane-mCherry. Images were captured every 25 (**A**) or 30 (**B**) minutes. Scale bar: 20 μm.

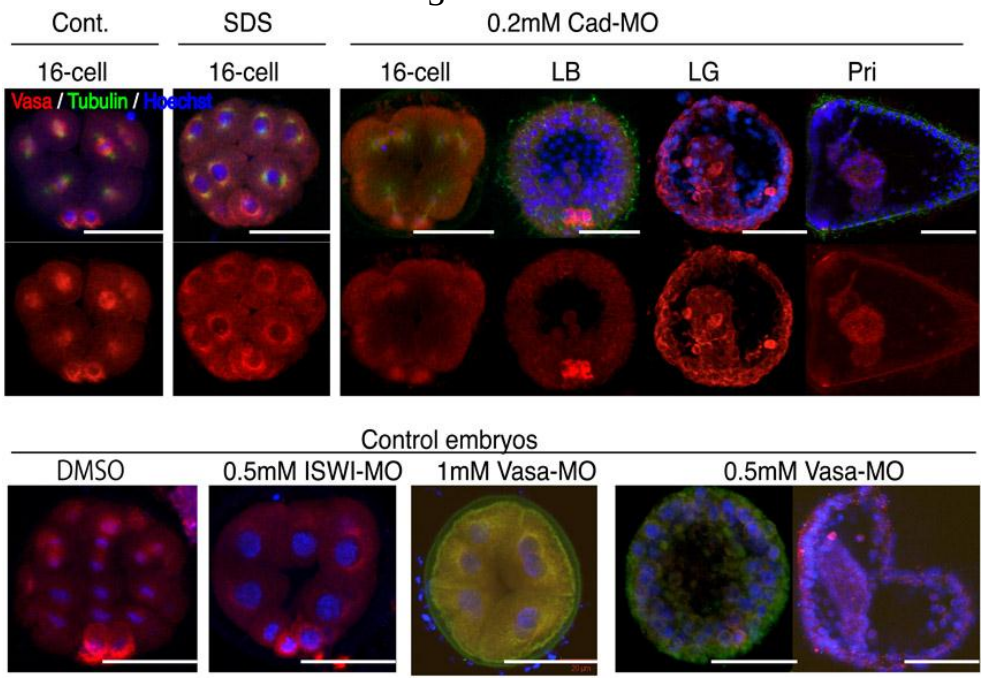
Cont.
SDS
0.2mM Cad-MO
16-cell
16-cell
16-cell
LB
LG
Pri
Vasa / Tubulin / Hoechst
Control embryos
DMSO
0.5mM ISWI-MO
1mM Vasa-MO
0.5mM Vasa-MO

Fig. S3. Specific Vasa localization is lost in G-cadherin MO embryos. Eight-cell embryos were treated with 0.5 mg/ml SDS for 40 minutes (SDS) or 0.2 mM G-cadherin was injected into fertilized eggs (Cad-MO), and endogenous Vasa localization (red) was observed by immunolabeling with Vasa antibody (red), tubulin (green) and Hoechst (blue). Control embryos were injected either with DMSO, 0.5 mM ISWI-MO or 0.5-1 mM Vasa-MO (Yajima and Wessel, 2011b) and immunostained as described above. DMSO or ISWI-MO showed little effect on development or Vasa accumulation at the 16-cell stage (positive controls), whereas Vasa-MO caused severe defects in Vasa expression and cell cycle progression at 16-cell, blastula and gastrula stages, yet showed little effect on cell-cell adhesion and gastrulation. LB, late blastula; LG, late gastrula; Pri, prism stage. Scale bars: 50 μm.