

doi: 10.1387/ijdb.170053bc

**SUPPLEMENTARY MATERIAL**

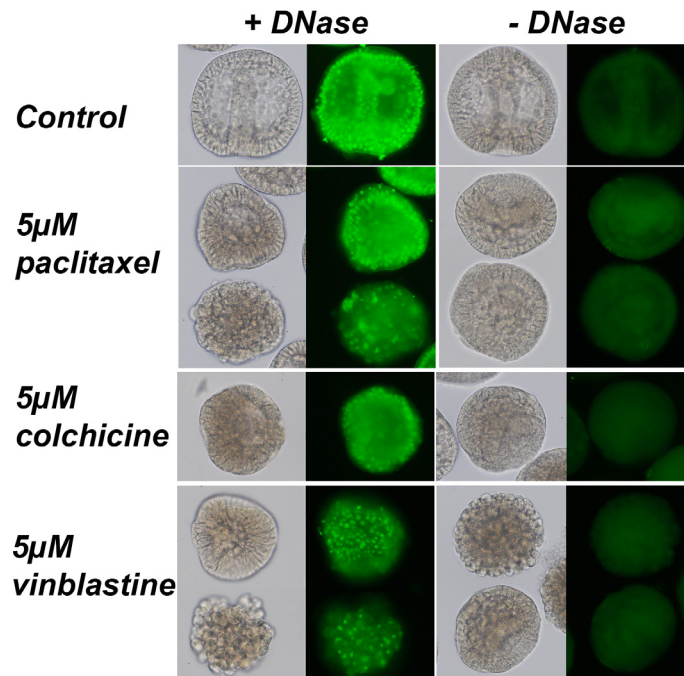
**corresponding to:**

**Role of Mad2 expression during the early development  
of the sea urchin**

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**Suppl. Fig. S1. DNA fragmentation is not detected after treatment of embryos with mitotic drugs during 28 h.** Embryos non-treated (Control) or treated with 5 mM paclitaxel, colchicine or vinblastine were assessed with a fluorescein cell death kit as described in Mat and Met. after artificial DNA fragmentation (+DNase) or nor (-DNase). Embryos are observed by transmitted light (left panels) and epifluorescence microscopy (green images, right panels). Although embryos are highly fluorescent after DNase treatment (control experiment), no obvious fluorescence was observed in all conditions in absence of DNase, even when embryos start to fragment as those shown in the lower panels and treated with vinblastine.

SUPPL. TABLE 1

**SEQUENCE HOMOLOGIES OF PROTEINS INVOLVED  
IN THE SAC BETWEEN H.SAPIENS AND S. PURPURATUS**

<b>Homo sapiens</b>	<b>Predicted protein <i>S. purpuratus</i></b>	<b>Identities</b>
MAD3/BUB1-related protein kinase; BubF	XP_782910.3	35%
MAD1	MAD1 isoform X2, XP_011673102.1	34%
Aurora A/ Aurora B	aurora kinase A , XP_011666707.1	70%
BUB3	BUB3, XP_780636.1	78%
BUB1	XP_782910.3	43%

Sequences of human proteins were blasted (blastp) against the *Strongylocentrotus purpuratus* (taxid:7668) on the NCBI database. *S. purpuratus* protein sequences were retrieved from the optimal hits and subjected to an optimized global alignment of the corresponding human sequences through the EMBOSS Needle program that uses the Needleman-Wunsch algorithm with default parameters.