## **On-line supplementary materials**

## P68 RNA Helicase Facilitates Breast Cancer Progression by Promoting Proliferation and Migration via PDGFR-β/AR Axis.

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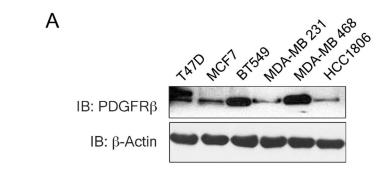
**Supplementary Figure S1. (A)** Expression of PDGFR-β (IB:PDGFR-β) in indicated breast cancer cell lines was analyzed by immunoblot. β-actin (IB:β-actin) is the loading control. **(B)** Representative images of phase contrast microscopy of PDGF-BB stimulated MDAMB231 cells upon indicated conditions.

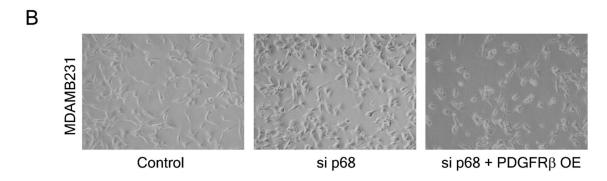
**Supplementary Figure S2.** Relative mRNA expression of c-FOS, a PDGFR- $\beta$  responsive gene in MDAMB231 and BT549 cells stimulated with PDGF-BB upon p68 knockdown. Error bars represent mean  $\pm$  S.E.M. \*\*P<0.01, \*\*\*P<0.001 by unpaired Student's t-test.

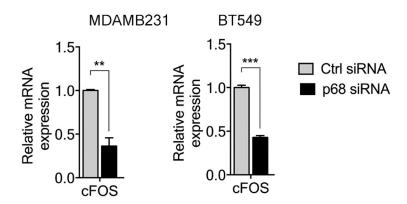
**Supplementary Figure S3. (A)** Quantitative analyses of migrating MDAMB231 cells in the scratched areas upon indicated conditions. The results represent findings of three independent experiments. **(B)** Immunoblot analyses of EMT markers such as E-Cadherin, Snail, and Vimentin in PDGF-BB stimulated MDAMB231 and BT549 cells upon indicated conditions. Knockdown efficiency of p68, PDGFR-β, and PDGFR-β overexpression was analyzed by immunoblot of p68 and PDGFR-β.

(C) Immunoblot analysis of AR and PDGFR- $\beta$  in PDGF-BB stimulated MDAMB231 and BT549 cells upon PDGFR- $\beta$  knockdown. Knockdown efficiency was analyzed by immunoblot. In A and C, immunoblot of  $\beta$ -actin (IB:  $\beta$ -actin) is a loading control. Error bars represent mean  $\pm$  S.E.M. \*\*P<0.01, \*\*\*\*P<0.0001, ns denotes non-significant by unpaired Student's t-test.

**Supplementary Figure S4.** Representative images of immunofluorescence staining of PDGFR-β (red) in MDAMB231 cells stimulated with PDGF-BB upon p68 knockdown compared with the control. Nuclei were stained with DAPI (blue).







## **Supplementary Figure S3**

