

Supplementary Information

Physical plasma-triggered ROS induces tumor cell death upon cleavage of HSP90 chaperone

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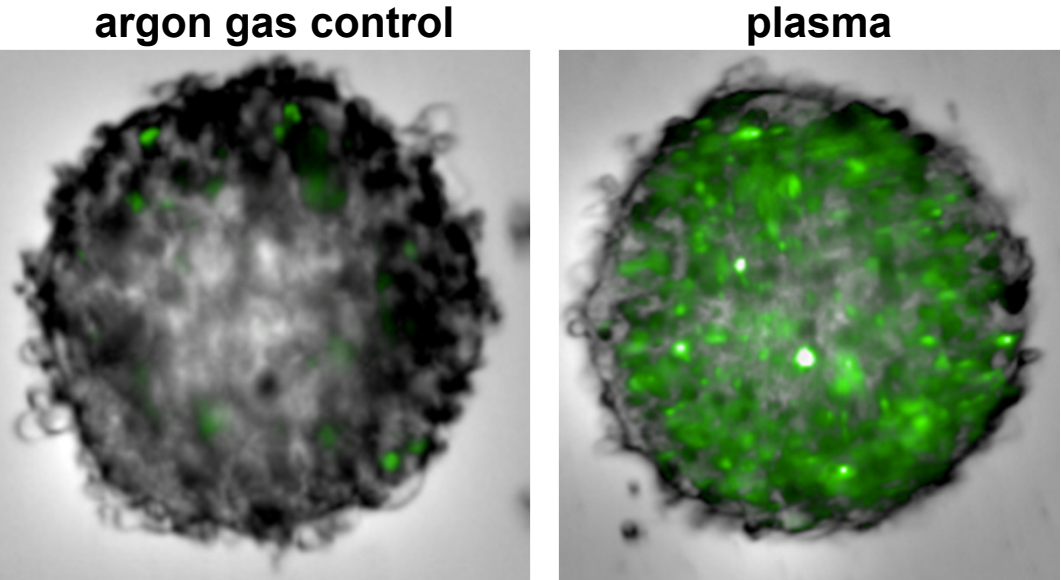
Suppl. Figure 1. Plasma treatment is toxic in MDA-MB-231 3D tumor spheroids. Control or plasma-treated (30s) spheroids were incubated at 24h with cell death dye Sytox green, (A) representative images, (B) quantitative image analysis of mean fluorescent intensity (MFI) within spheroid area.

Suppl. Figure 2. Lentiviral-mediated HSP90 knock-down in SW480 (A) and MDA-MB-231 (B) cancer cells was conducted. Lysates of cancer cells with abrogated HSP90 or subjected to plasma treatment (30s) were used for western blot analysis with cleaved PARP. β -actin was used as loading control.

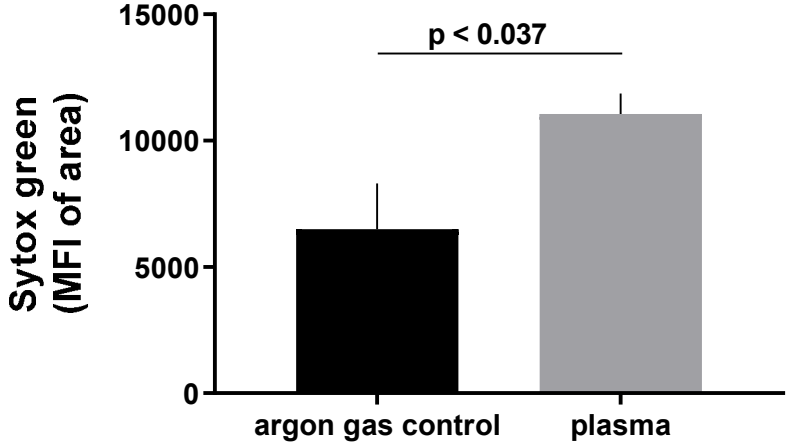
Suppl. Figure 3. SW480 (A) and MDA-MB-231 (B) cancer cell lines were subjected to treatment with plasma jet (60s). Twenty-four hours later, cleared lysates were used for western blot analysis in order to determine the HSP90 and STK33 abundance. β -actin was used as loading control.

Suppl. Figure 4. SW480 cancer cells were transduced with PKD2 expression (PKD2 o.e.) or empty vector (e.v.), selected with the appropriated antibiotic before being subjected to plasma treatment (30s). Lysates of transduced cancer cells were prepared and SDS-PAGE was conducted with PKD2 antibody. β -actin was used as loading control.

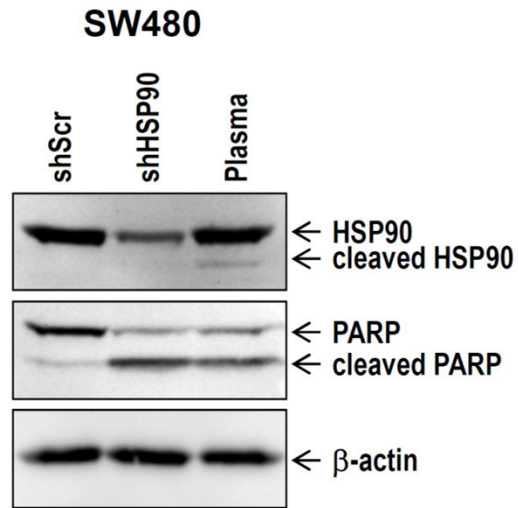
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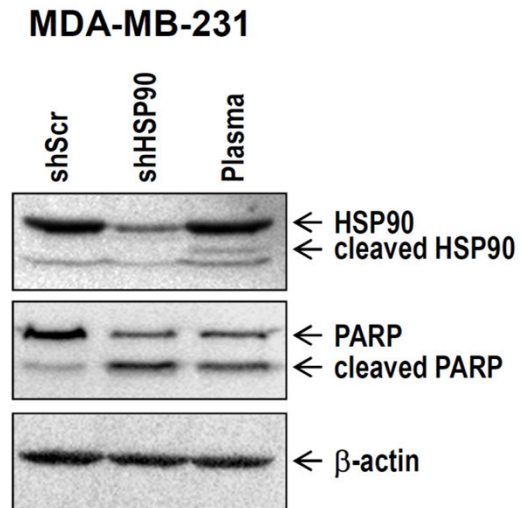
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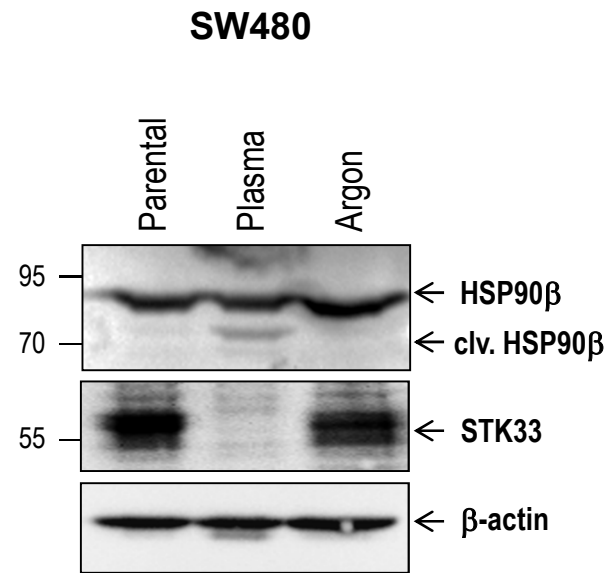
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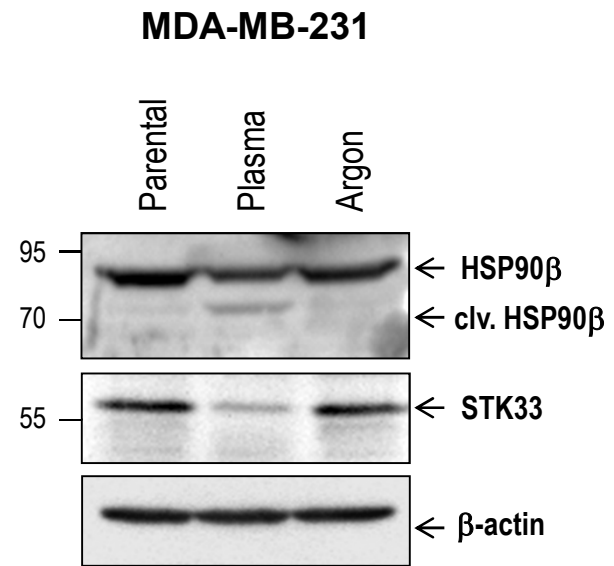
B



A



B



Suppl. Figure 4

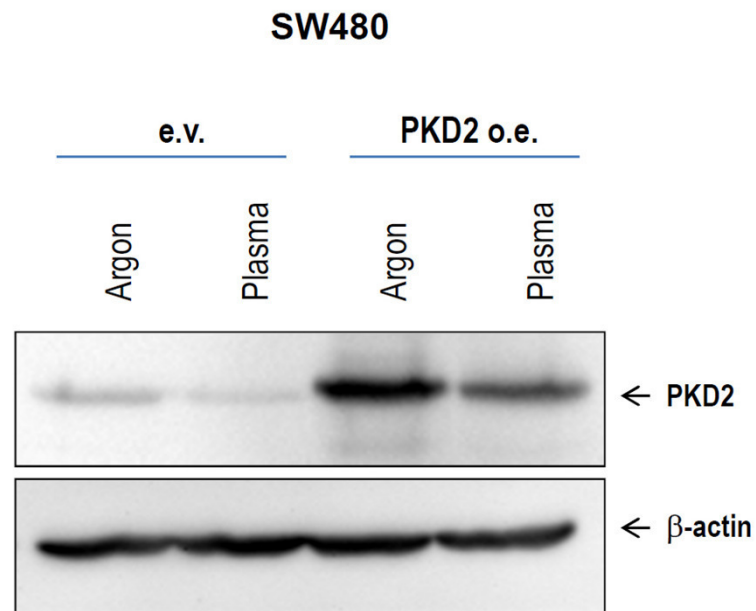
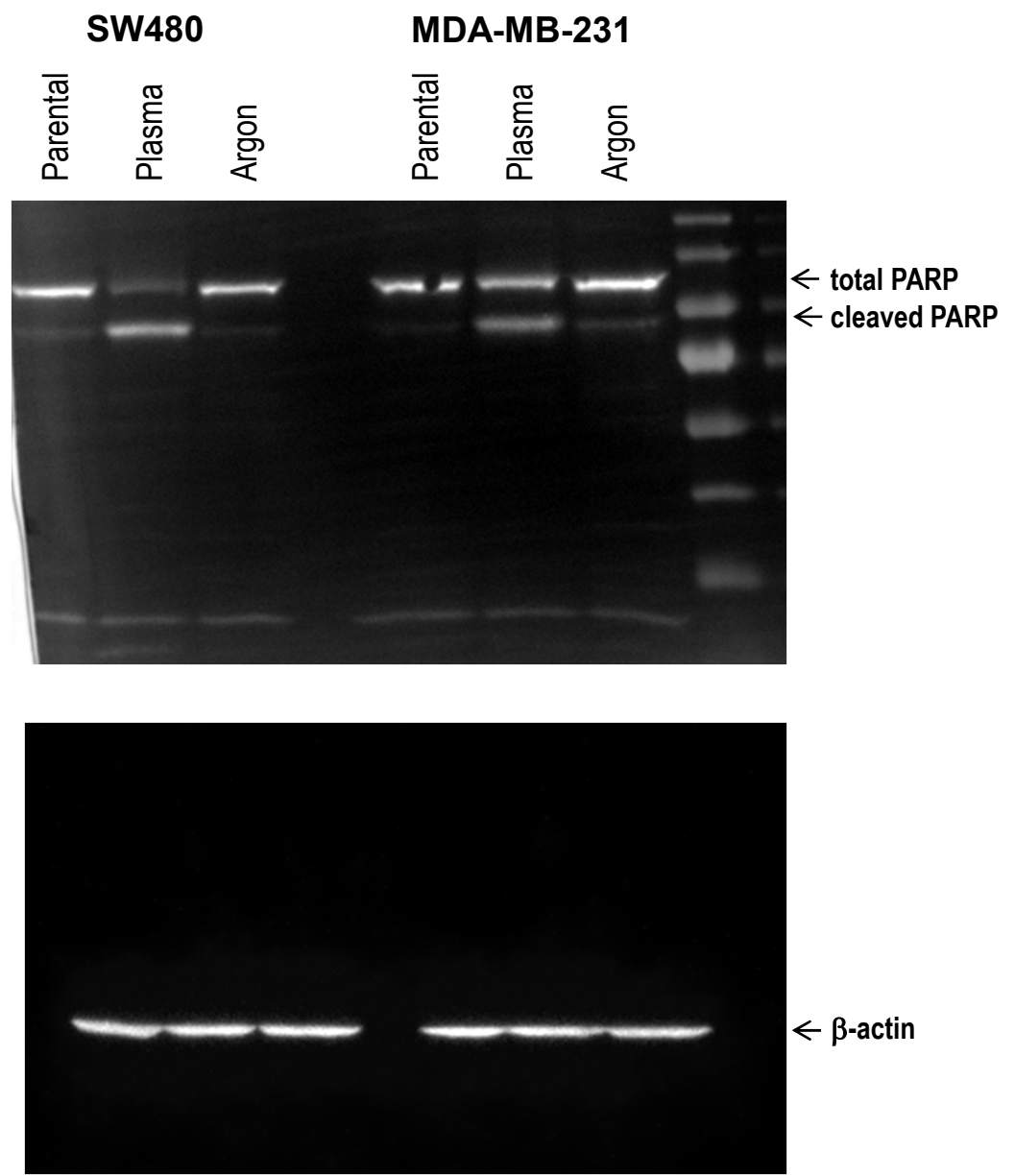


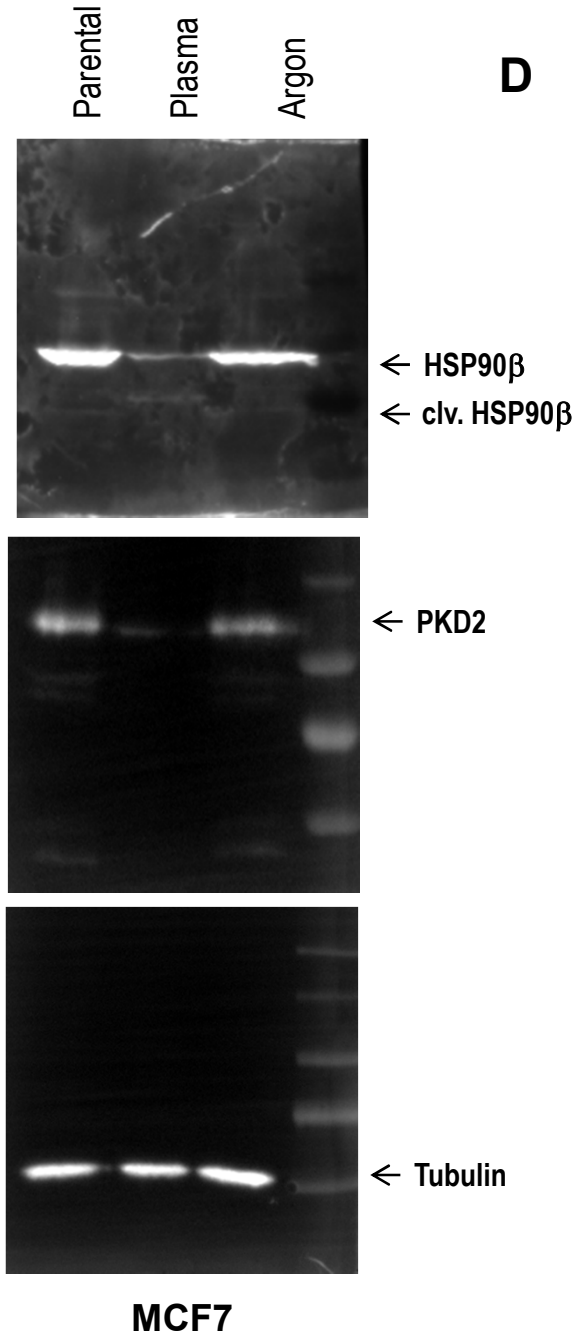
Figure 2

C



Full blots to

C



D

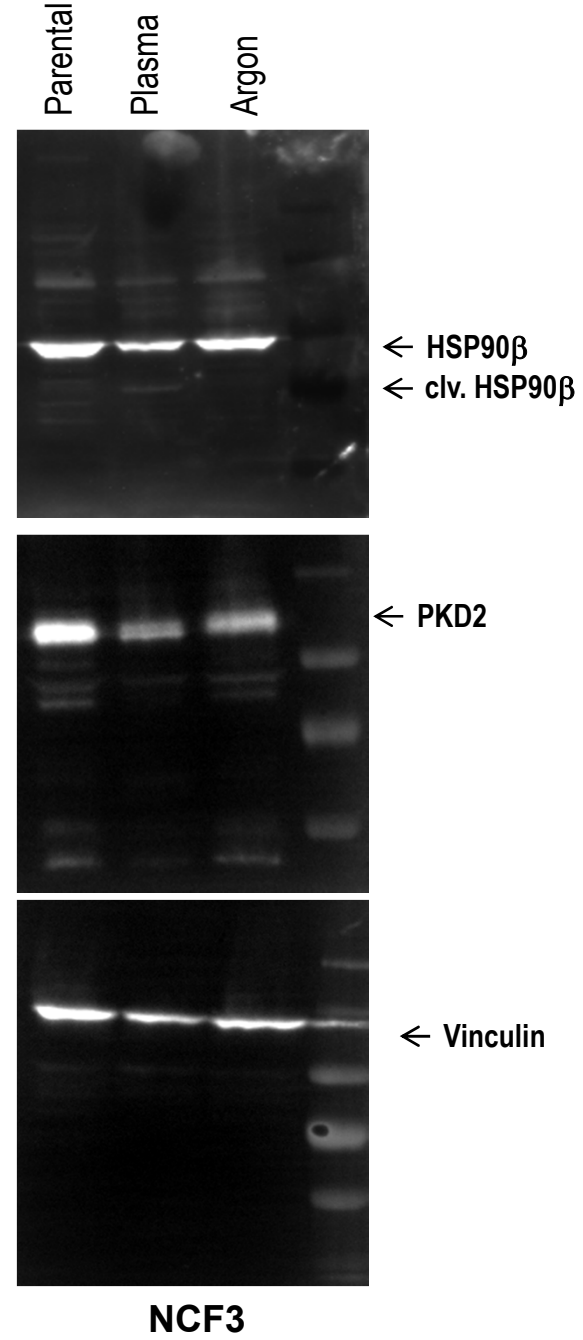
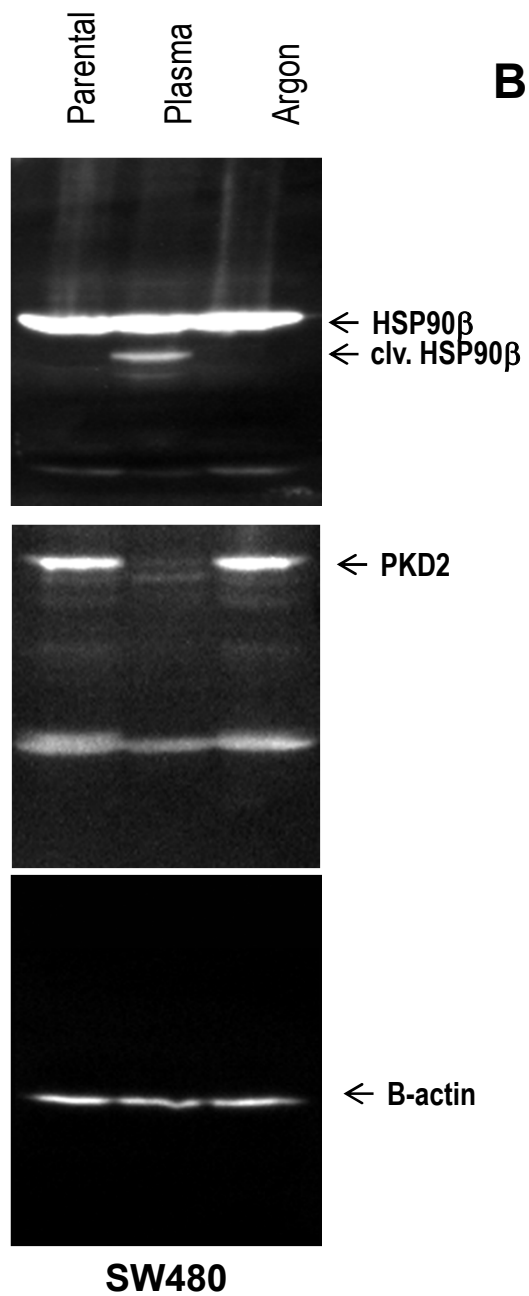


Figure 3

Full blots to

A



B

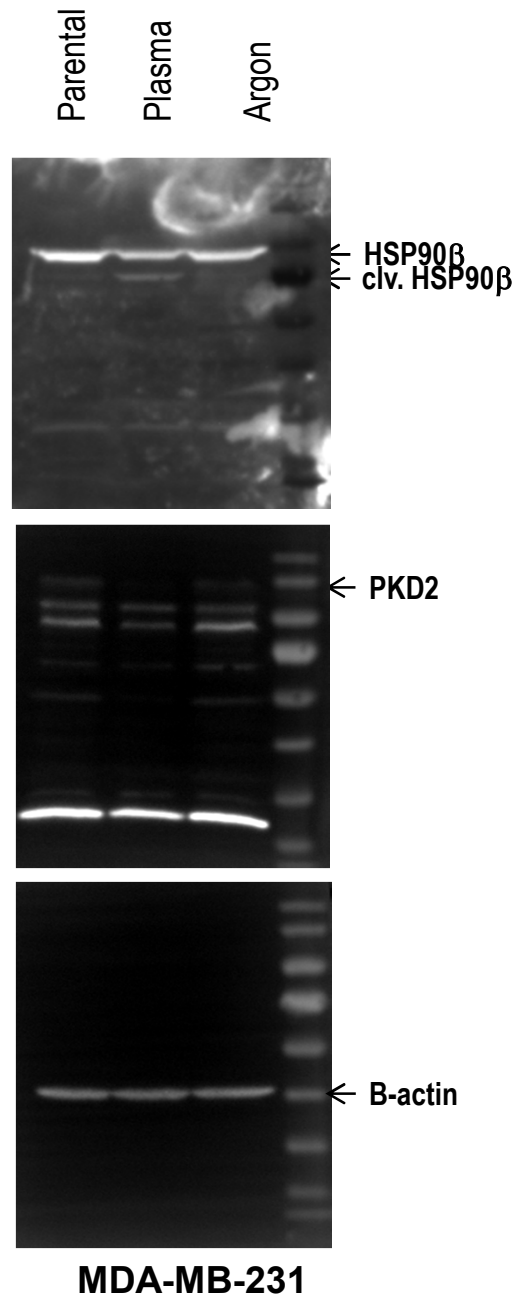
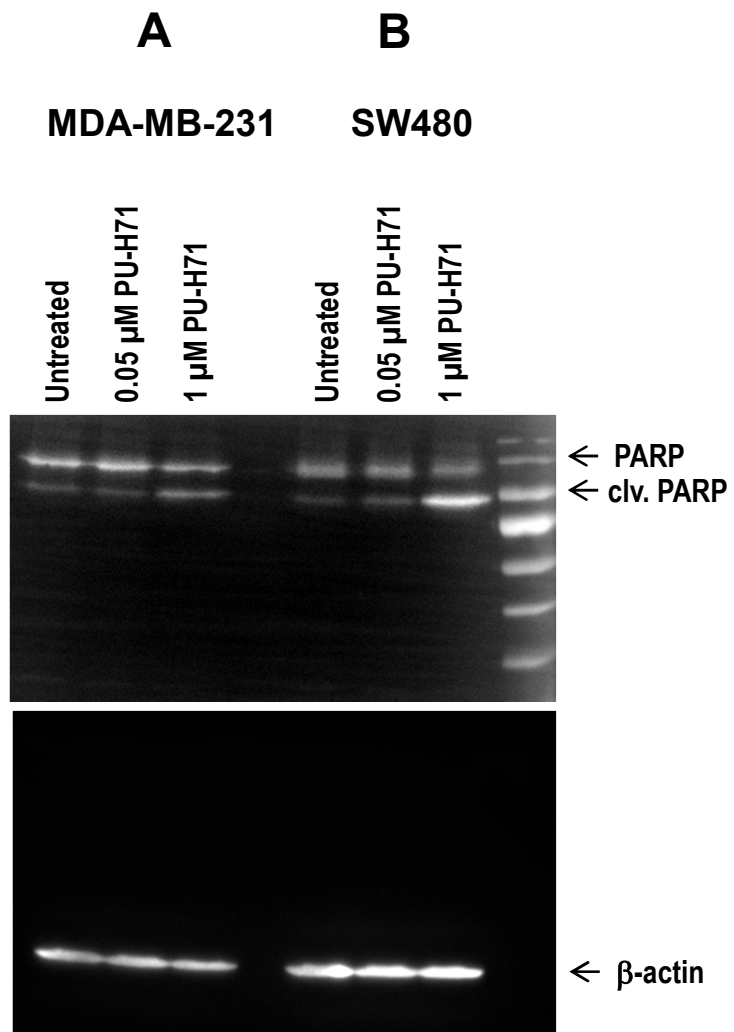


Figure 3

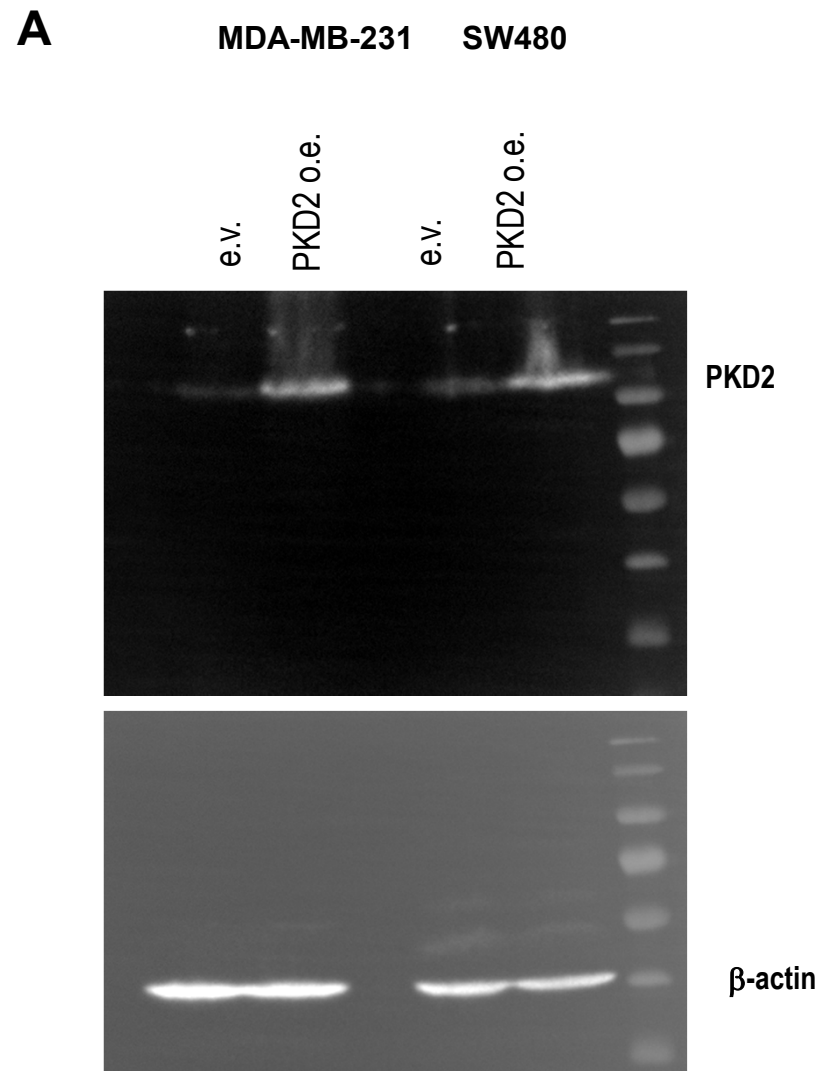
Full blots to

Figure 4

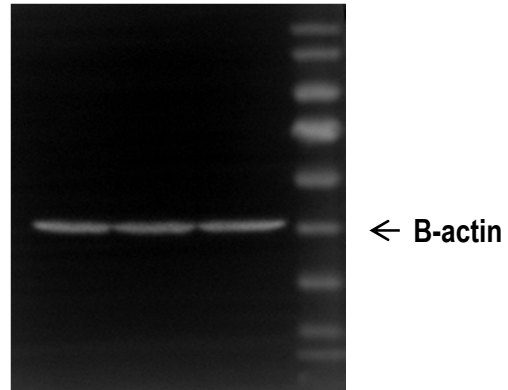
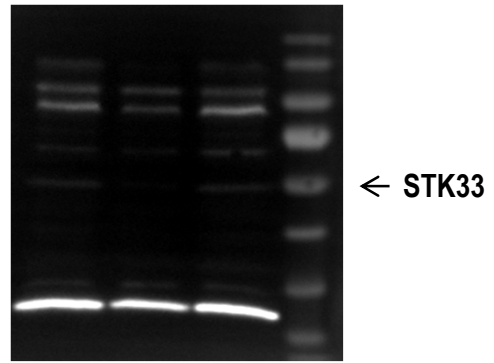
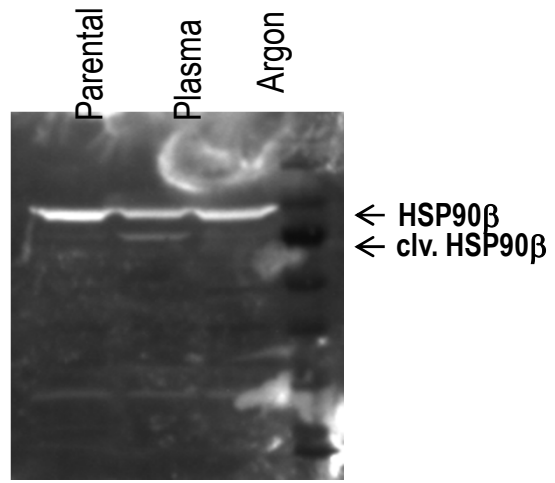


Full blots to

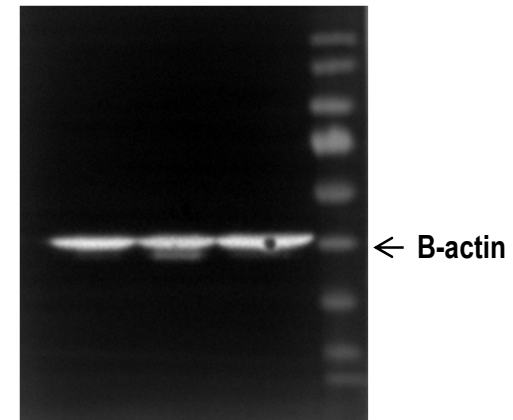
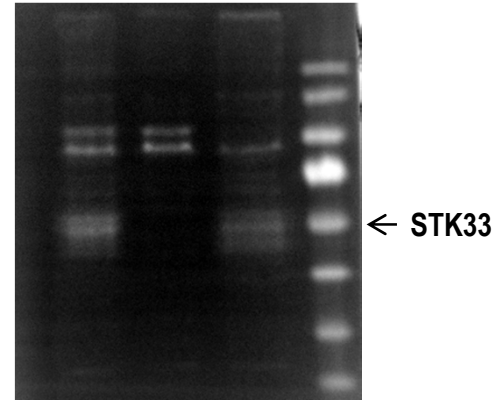
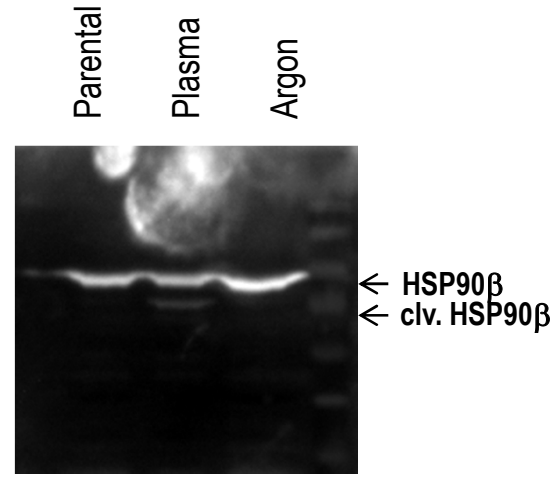
Figure 5



Full blots to



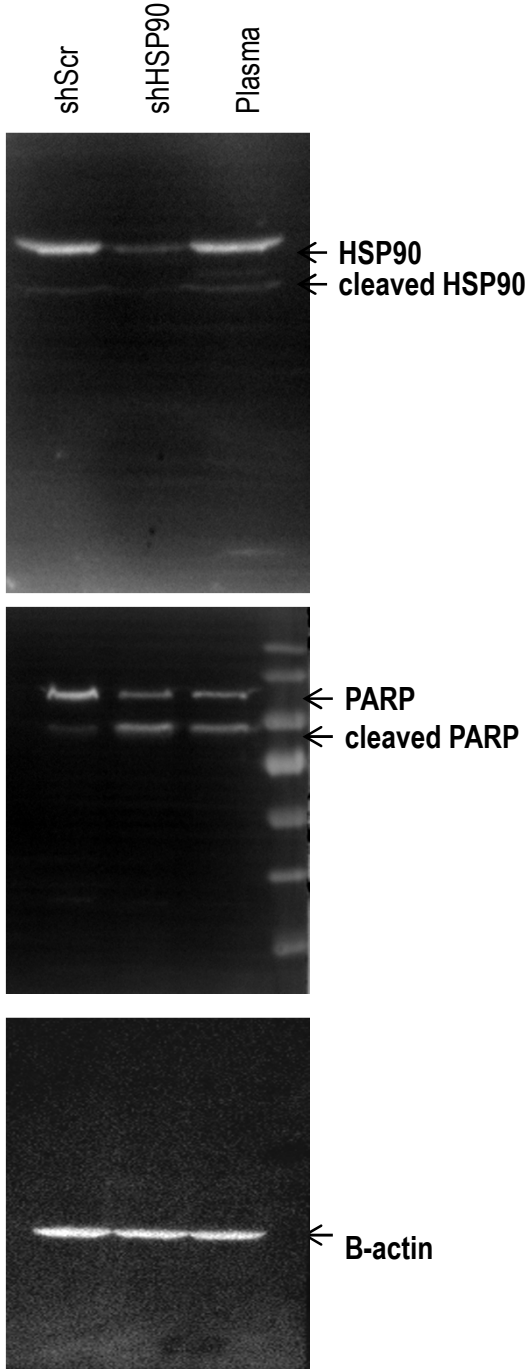
MDA-MB-231



SW480

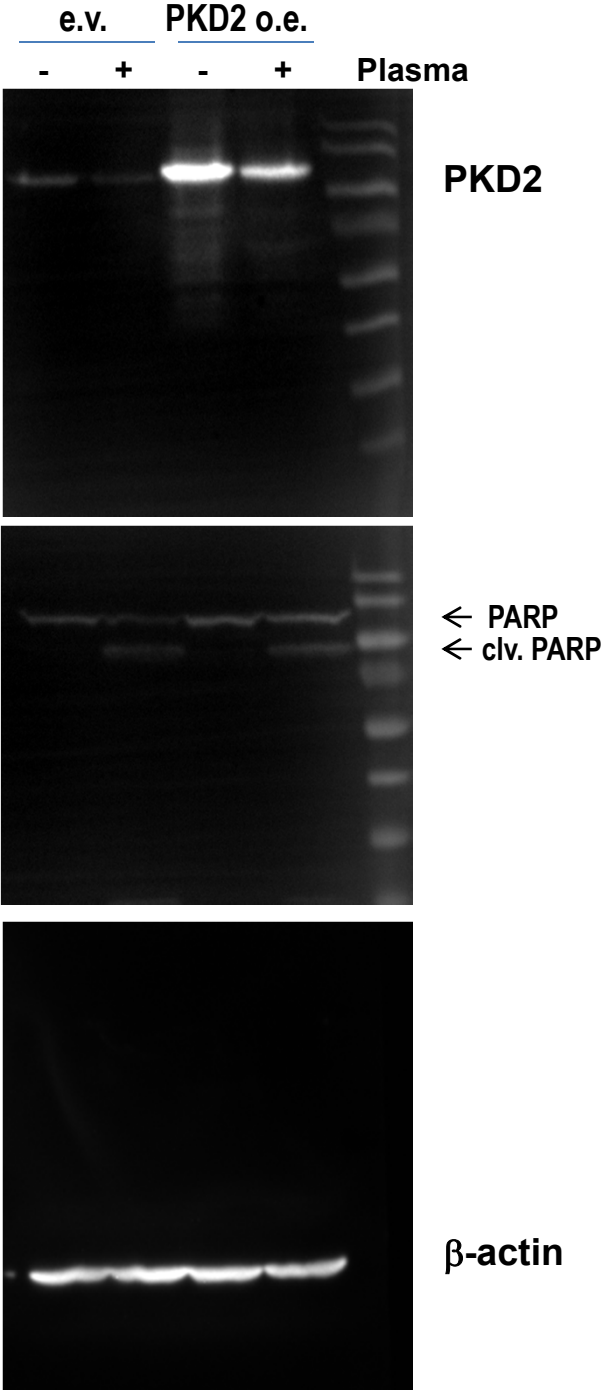
Full blots to

MDA-MB-231



Full blots to

SW480



Full blots to