



**Supplementary Figure 1:** The upper gel represents western blot for the detection of pH2AFX and the lower one for the detection of GAPDH, the latter as a loading control.

Molecular weight markers along with a positive control cardiac protein extract from the heart of a mouse with known expression of pH2AFX are included. The upper dark bands are non-specific bands shown upon long exposure of the membrane due to a relatively low expression levels of pH2AFX.