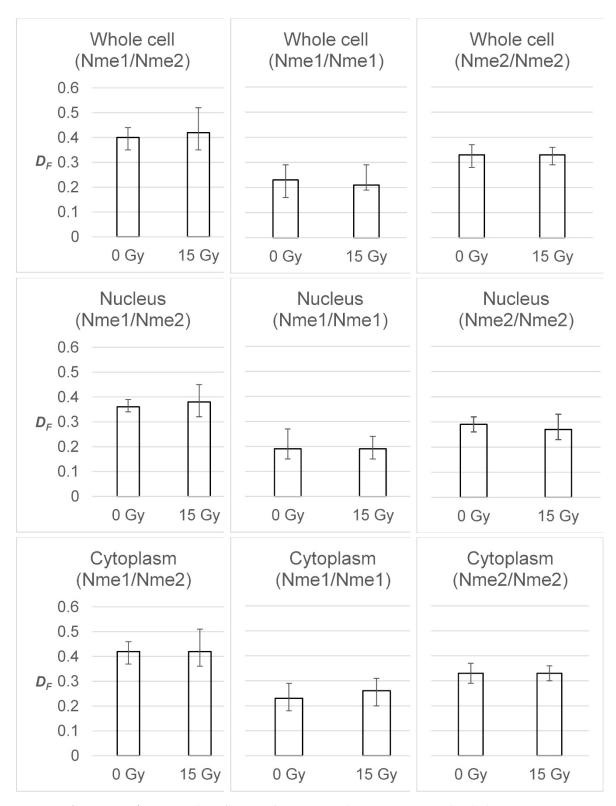
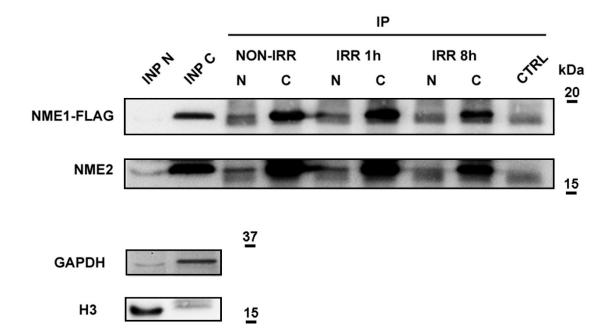


**Supplementary Figure S1.** Western blot analysis performed on HeLa cells lysates, before and after exposure to gamma irradiation of 15 Gy. Antibody against  $\gamma$ H2AX specifically recognizes phosphorylation of histone protein  $\gamma$ H2AX on Ser139. The elevated  $\gamma$ H2AX shows the emergence of double-stranded DNA breaks.



**Supplementary Figure S2.** The influence of gamma irradiation on  $D_F$  in each cellular compartment (nucleus and the cytoplasm), of cells expressing three pairs of fluorescently labeled NME proteins. Non-irradiated transfected HeLa cells (0 Gy) and gamma irradiated HeLa cells (15 Gy) are compared.  $D_F$  is shown as the median and the interquartile range. None of the pairwise differences are statistically significant.



**Supplementary Figure S3.** Coimmunoprecipitation of NME1-FLAG and NME2 proteins in the nucleus and the cytoplasm. Coimmunoprecipitation was detected in non-irradiated cells (NON-IRR) and cells subjected to gamma irradiation (30 Gy) collected 1 and 8 h after irradiation (IRR 1h and IRR 8h, respectively). Anti-GAPDH antibody was used as a marker for cytosolic fraction and anti-histone H3 as a marker for nuclear fraction. NME1-FLAG protein was visualized with anti-FLAG antibody and NME2 protein with anti-NME2 antibody.