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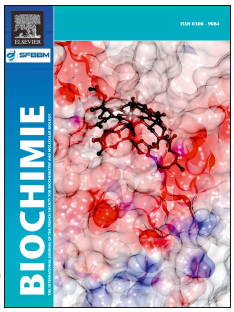

Irradiation by γ-rays reduces the level of H3S10 phosphorylation and weakens the G2 phase-dependent interaction between H3S10 phosphorylation and γH2AX

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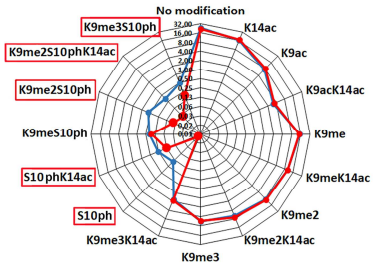
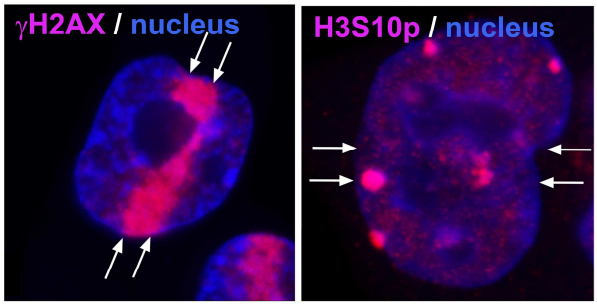
A irradiation by γ-rays reduced H3S10ph

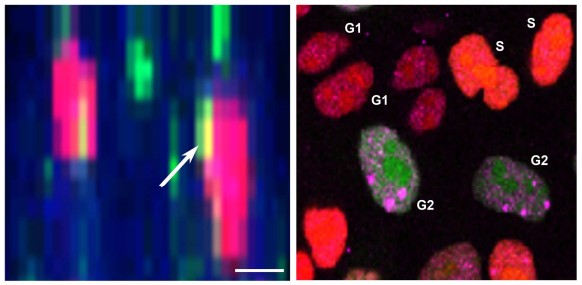
Histone H3, K9STGGKAPR17



B H3S10ph was intact in γH2AX-positive microirradiated region



C H3S10ph- and γH2AX- positive foci co-localized in G2 phase (no H3S10ph-γH2AX interaction is in G1 phase)



H3S10p / γH2AX / cell nuclei RFP-Cdt1 / GFP-geminin / H3S10p

D H3S10ph dephosphorylation is not directly linked to DNA repair but H3S10ph level is affected by a cell number decrease in G1