

**The effect of ionizing radiation and carminomycin on plasma membrane of human trisomic fibroblasts**

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On the basis of our previous studies on viability and survival human fibroblasts treated with carminomycin, an anthracycline antibiotic, and ionizing radiation it was shown that trisomic cells with the enhanced activity of antioxidative enzymes were less sensitive to carminomycin action, which indicated the protective role of these enzymes, whereas their enhanced activity did not result in the protection against radiation. By the method of fluorescence depolarization of the fluorescent probe TMA-DPH it was found that plasma membranes of trisomic cells are more fluid than the membranes of control cells. Membrane fluidity of trisomic cells increased after the incubation with carminomycin and gamma-radiation, whereas membrane fluidity of the control cells did not depend on both factors. Presented results suggest that the observed differences in the vulnerability to carminomycin and ionizing radiation of control and trisomic cells are probably due to different mechanisms of free radical generation for both factors.