

Synthesis, cytotoxic and genotoxic activity of new chlorine-containing chlorophyll *a* derivatives

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Abstract

On the basis of methylpheophorbide *a* new *a*-series chlorins with chlorine-containing substituents on the periphery of the macrocycle were synthesized. The dark and photoinduced cytotoxic activity of these compounds on HeLa cells was studied. It was shown that chlorins containing in their structure an exocycle have low dark and high photoinduced cytotoxic activity. By "DNA-comet assay" it was established that under photoinduced exposure of chlorins with an exocycle to HeLa cells, DNA damage does not occur.

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