

Functionalized silicon microdevices for sulforhodamine and doxorubicin pH-controlled release in HeLa cells

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The development of micro/nano-drug delivery systems (DDS) has attracted the attention of researchers seeking stimuli-controlled delivery at an intracellular level. Acidic microenvironment of tumours could be an interesting trigger signal. In the present work we study silicon microdevices functionalized with doxorubicin (DOX, chemotherapy DNA-intercalating drug) or sulforhodamine B (SR, fluorescent probe) as an intracellular DDS in HeLa cells and analyse the release of these drugs in response to external pH. Our results showed a higher drug release at acidic pH of both molecules, SR and DOX.

References

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