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Aptabodies - New type of artificial receptors for detection proteins

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Abstract

We report on a new type of artificial receptor formed by hybridization of two DNA aptamers for human thrombin (aptabody). This aptasensor based on multiwalled carbon nanotubes allowed us to detect thrombin with detection limit of 0.3 nM, which was 3 times better in comparison with conventional aptamer. © 2008 Bentham Science Publishers Ltd.

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Keywords

Biosensor, DNA aptamers, Electrochemical quartz crystal microbalance, Human thrombin, Hybridization, Multiwalled carbon nanotubes