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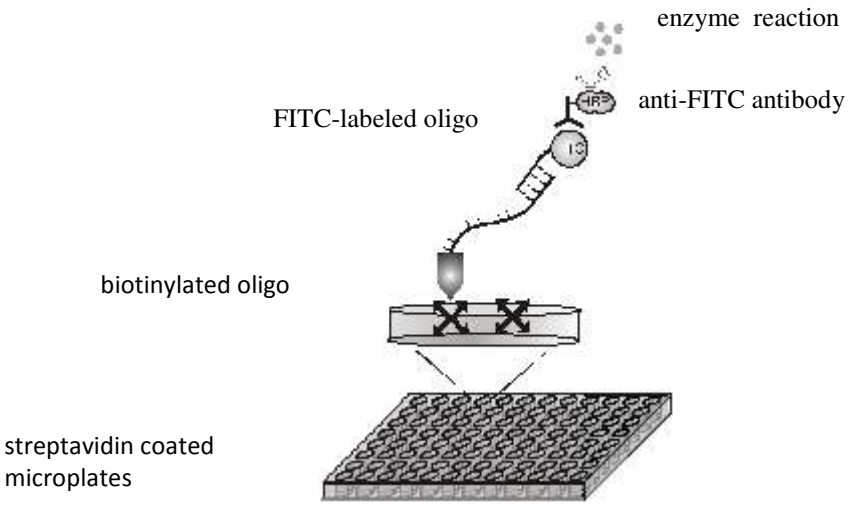
Streptavidin coated microplates using for DNA hybridization assays

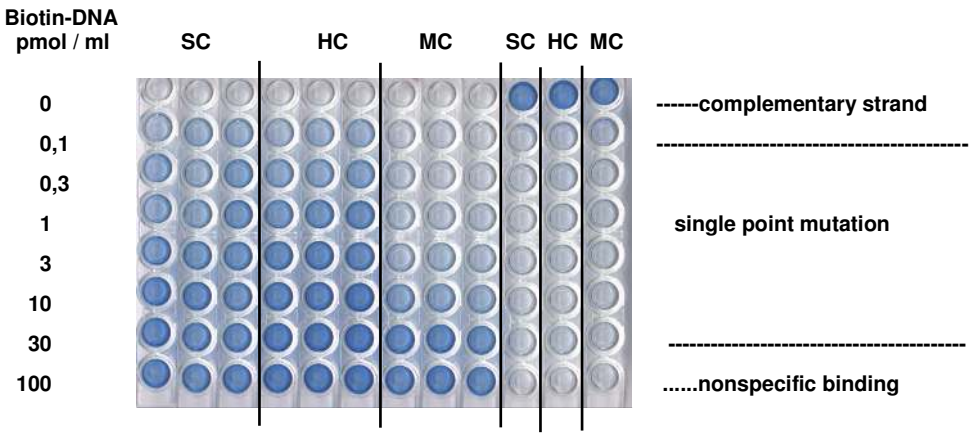
DNA-ELISA / colorimetric measurement

Principle of measurement

- binding of biotinylated oligonucleotides (or PCR-product)
- denaturation of DNA
- wash off non-bound oligonucleotides (or PCR-product)
- hybridization with FITC-labeled oligo
- detection with anti-FITC antibody coupled with horseradish peroxidase (HRP)
- colorimetric measurement with ELISA reader



Comparison of our 3 different kinds of streptavidin coated microplates:
standard capacity SC, high capacity HC and maximum capacity MC

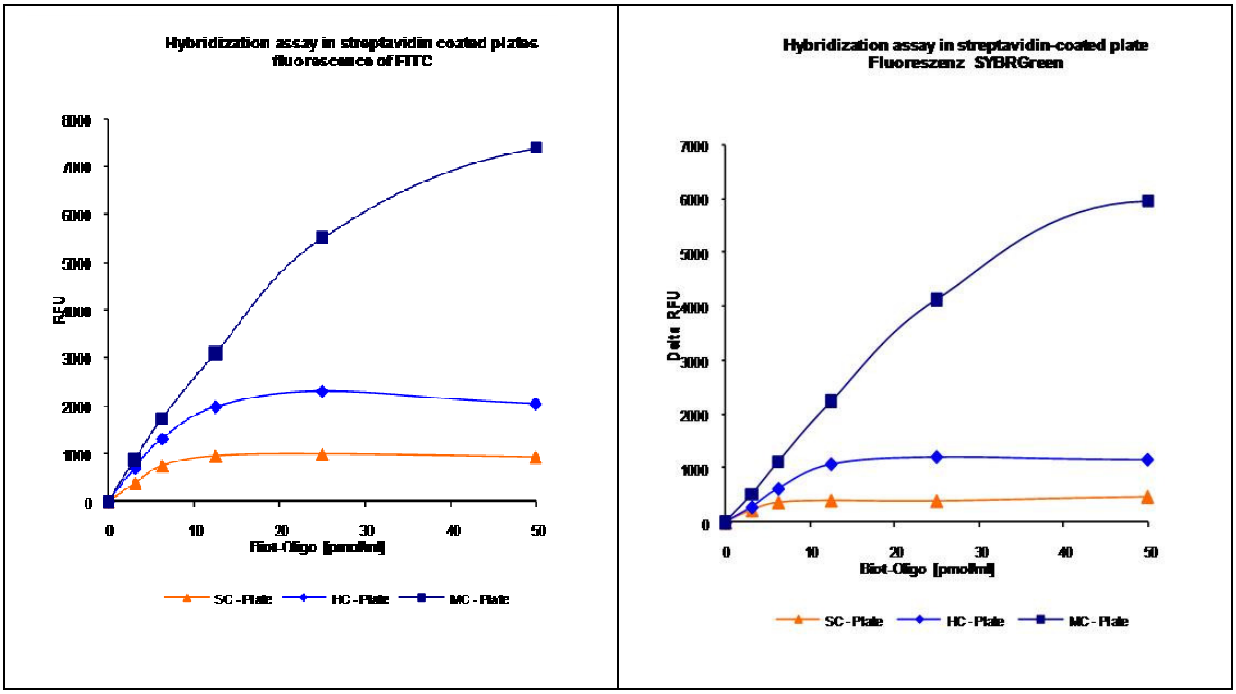


Sensitivity of streptavidin coated microplates

hybridization assays / fluorescence measurements

Principle of measurement

- binding of biotinylated oligo (89mer)
- wash off unbinding oligos
- hybridization with complementary FITC-labeled oligo (18mer)
- perform measurement of fluorescence: FITC or alternatively SyBrGreen

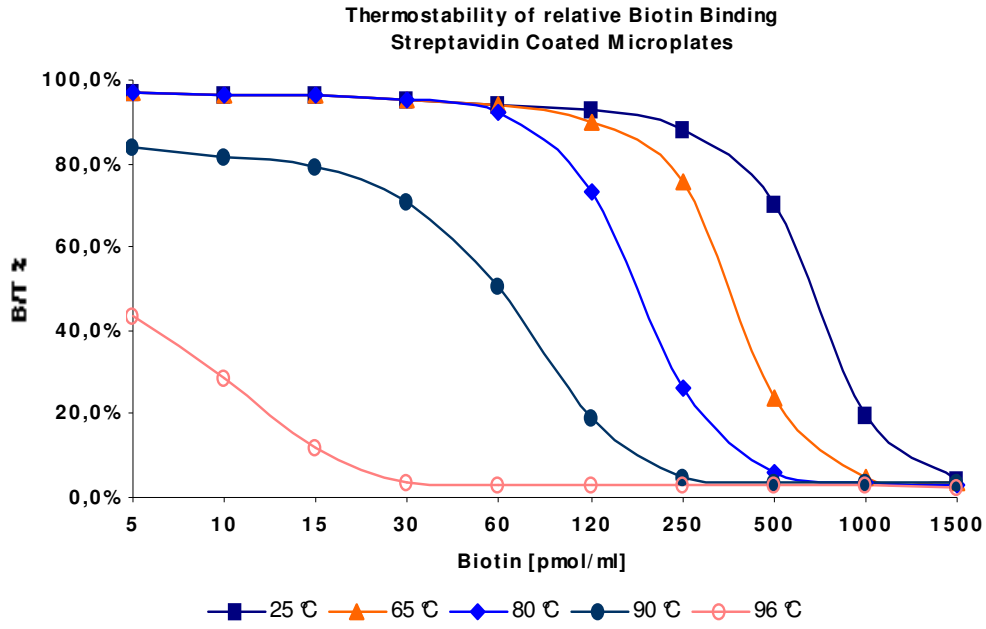


SC: standard capacity, HC: high capacity, MC: maximum capacity;

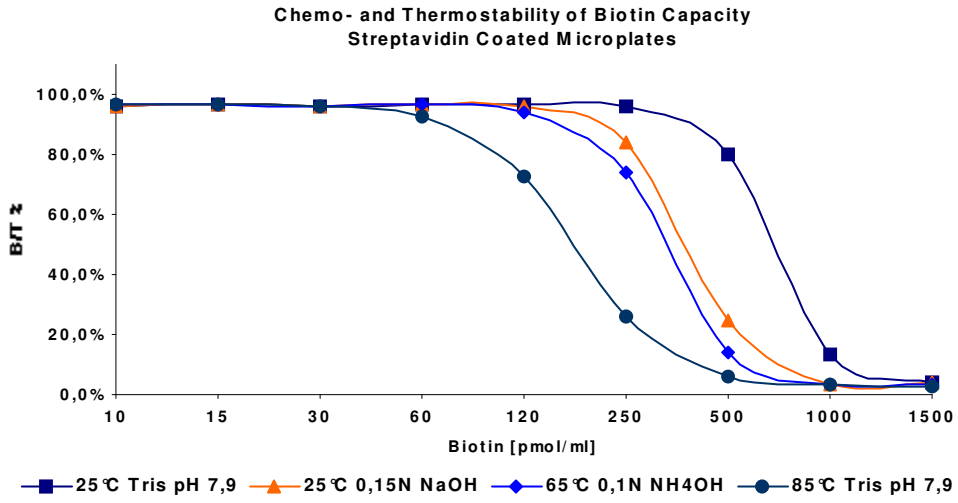
Thermo- and Chemostability of Streptavidin Coated Microplates

With our technology we are able to coat Streptavidin on polycarbonate and polypropylene microplates, not only on polystyrene.

The increased binding capacity of our Streptavidin layer on polypropylene and polycarbonate microplates is kept at temperatures up to 85 ° C and after additon of 1 M NH4OH or NaOH solutions.
In neutral buffers we could preserve our high biotin binding capacity up to 80 ° C and even at 96 ° C a biotin binding capacity of 5 - 10 pmol/ml Biotin was still obtained.



Biotin-Binding Capacity	460	370	190	70	5	[pmol / mL]



Biotin-Binding Capacity	480	380	340	190	[pmol / mL]