Product Data Sheet

Cat#: AD-148-U
Cat#: AD-148-B, Biotin labeled
Cat#: AD-148-F, FITC labeled

Product Description: Tetracycline

Aptamer Type: DNA

Sequence: 5'-CGT ACG GAA TTC GCT AGC CCC CCG GCA GGC CAC GGC TTG GGT TGG TCC CAC TGC GCG TGG ATC CGA GCT CCA CGT G-3'; 76-mer

Size **Custom**

Mol. Wt: 23367.05 g/mole

Purity: >95%

Affinity: 63.6 nM (reported value)

Comments: Aptamer was immobilized on steptavidin-modified screen-printed gold electrodes to create a sensitive aptasensor for tetracycline (Kim et al. 2010). The range of detection was 0.01-10 μM.

Notes: 20 TET-group specific ssDNA aptamers were generated from a random pool which bind to more than one analogue of tetracycline group. Seven of them (T7, T15, T19, T20, T22, T23, and T22) had high affinities for the basic tetracycline backbone with which the TET-analogues are derived. The dissociation constant (Kd) of the selected seven aptamers was in the range of 63–483 nM.

References: Niazi et al. "Single-stranded DNA aptamers specific for antibiotics tetracyclines." Bioorganic & Medicinal Chemistry, 16(2008): 7245-7253.

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