

Moxifloxacin Aptamer

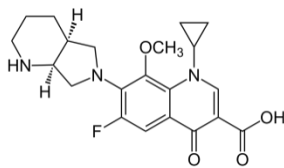
Product code: AG01 101

Name Moxifloxacin MOX B5 Aptamer

Description MOX B5 Aptamer is a full-length aptamer that specifically binds to the fluoroquinolone antibiotic Moxifloxacin. Functionality of MOX B5 Aptamer was proven in different matrices (e.g. human plasma, milk, river water). MOX B5 Aptamer can be used in displacement assay when combined with a suitable immobilisation oligonucleotide.

Aptamer Type DNA (100 nucleotides)

Target *Moxifloxacin hydrochloride (MW 437.896 g/mol)*



Other names:

1-cyclopropyl--7-(2,8-diazabicyclo(4.3.0)non-8-yl)-6-fluoro-8-methoxy-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid, Actira, Avalox, Avelox, BAY 12-8039, BAY 128039, BAY-12-8039, BAY-128039, Izilox, moxifloxacin, moxifloxacin hydrochloride, Octegra, Proflox).

Affinity K_D 1.6×10^{-6} M \pm 0.93

Measured in binding buffer (20 mM Tris-HCl, pH 7.4, 100 mM NaCl, 5 mM KCl, 2 mM MgCl₂, 1 mM CaCl₂, 0.01% Tween 20).

Measured by BioLayer Interferometry (BLI), Steady State Analysis and Displacement Assay.

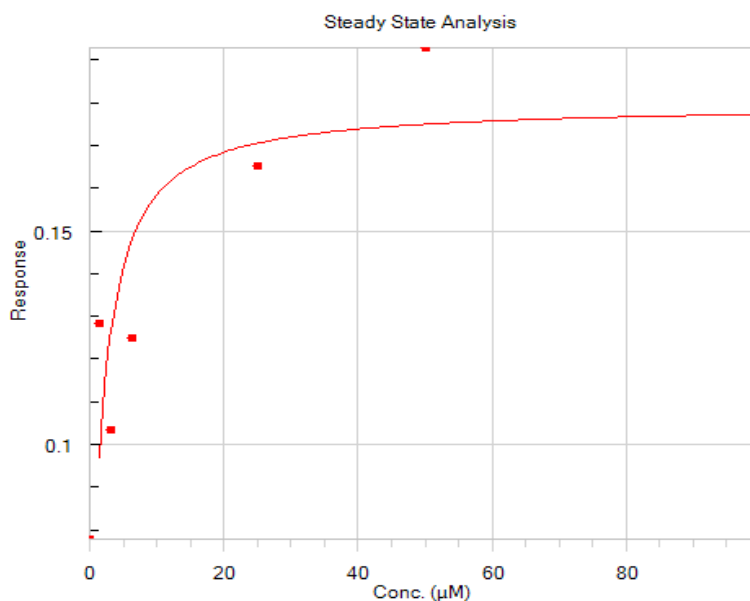


Figure 1: MOX B5 Aptamer Moxifloxacin Binding

The response is plotted versus the titrated target concentration (Note: Steady State Kinetics have been fit to aptamer displacement assay data. As the responses are not association curves, this is not a true K_D measurement and is intended for comparative purposes only.)

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Specificity Cross reactivity with Ciprofloxacin: 9.1%

Cross reactivity of the MOX B5 Aptamer was tested in microtiter plate-based Fluorescence Assay (ELISA-like Displacement Assay).

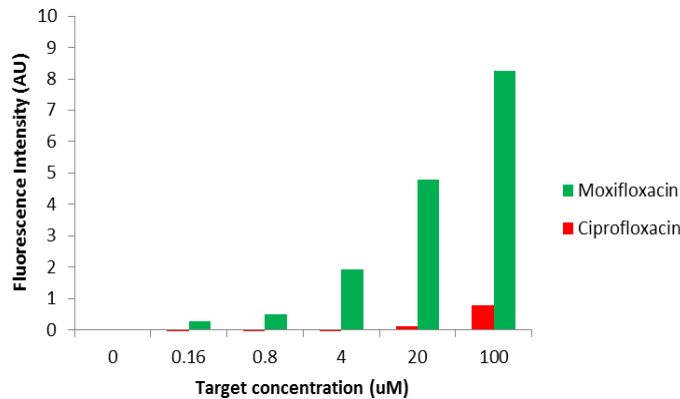


Figure 2: MOX B5 Aptamer Cross Reactivity

The response is plotted versus the titrated target concentrations

Function Aptamer functionality proven in following matrices (buffered):

- Human plasma, milk, river water and mock urine.

Tested with microtiter plate-based Fluorescence Assay (ELISA-like Displacement Assay).

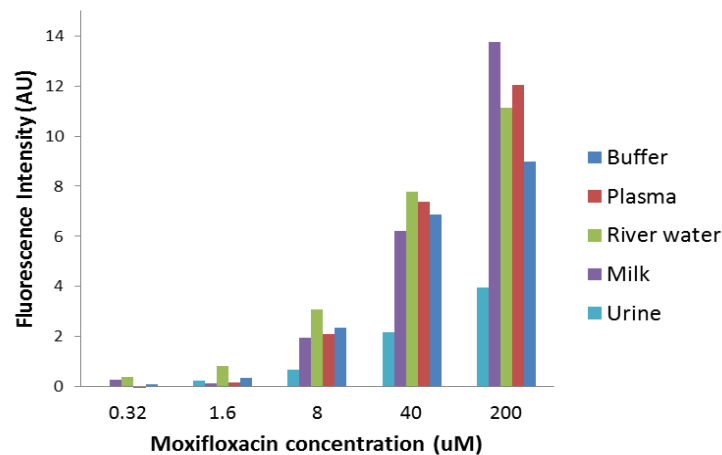


Figure 3: MOX B5 Aptamer Function

The response is plotted versus the titrated target concentrations

Application Proven in:

- Biolayer Interferometry (Displacement Assay).
- Surface Plasmon Resonance.
- Microtiter plate-based Fluorescence Assay (ELISA-like Displacement Assay).
- 5' or 3' modification on demand as required by the application.
- Suitable immobilisation oligonucleotide for displacement assays is also available.

Preparation Stable at room temperature, no special storage instructions.

+ Storage Refer to reconstitution instructions to ensure correct aptamer folding.