SUPPORTING INFORMATION

Paper-based Fluorogenic RNA Aptamer Sensors for Label-Free Detection of Small Molecules

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Table S1. RNA sequences used in this project. The Broccoli sequences were shown in green. The F30 scaffold sequences were shown in purple. Target-binding aptamers were shown in black. The transducer sequences were underlined.

| Broccoli	GAGACGGUCGGGUCCAGAUAUUCGUAUCUGUCGAGUAGAGUGUGGGCUC
F30-Broccoli	GGAAGUUGCCAUGUGUAUCGGUCCGAUACUCUGAUGAUCCGAGACGGUCGGGUCCAGAUAUUCGUAUCUGUCGAGUAGAGUGUGGGCUCGGAUCAUUCAUGGCAA
Broccoli tetracycline sensor	UUGCCAUGUGUAUGUGGGAGACGGUCGGGUCCAGAUGGAAAAACAUACCAGAUUUCGAUCUGGAGAGGUGAAGAAUACGACCACCUUCCCACUGUCGAGUAGAGUGUGGGCUCCCACAUACUCUGAUGAUCCUUCGGGAUCAUUCAUGGCAA
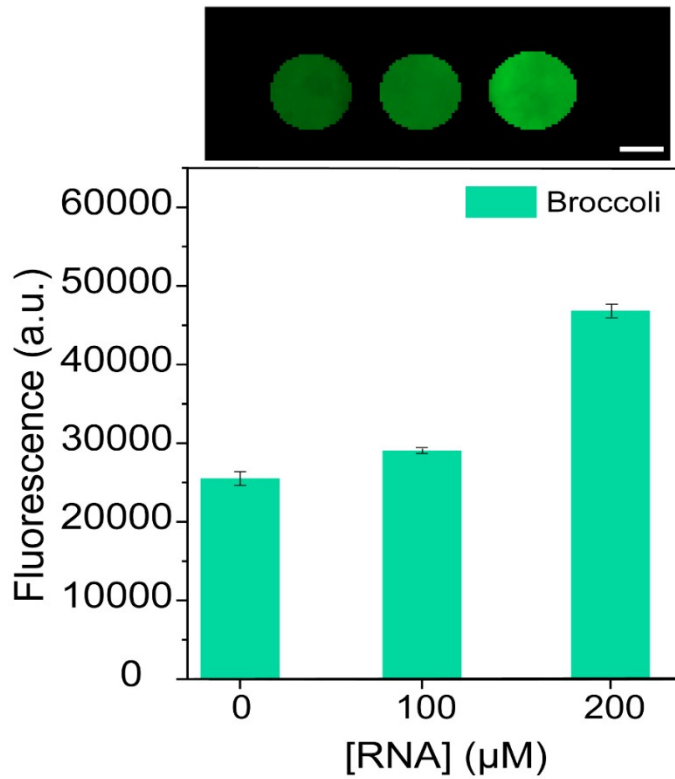
Figure S1. Using a small size paper pallet, 0.1 pmol of Broccoli RNA can be detected. Scale bar, 0.8 mm. Shown are mean and SD values of three independent replicates.
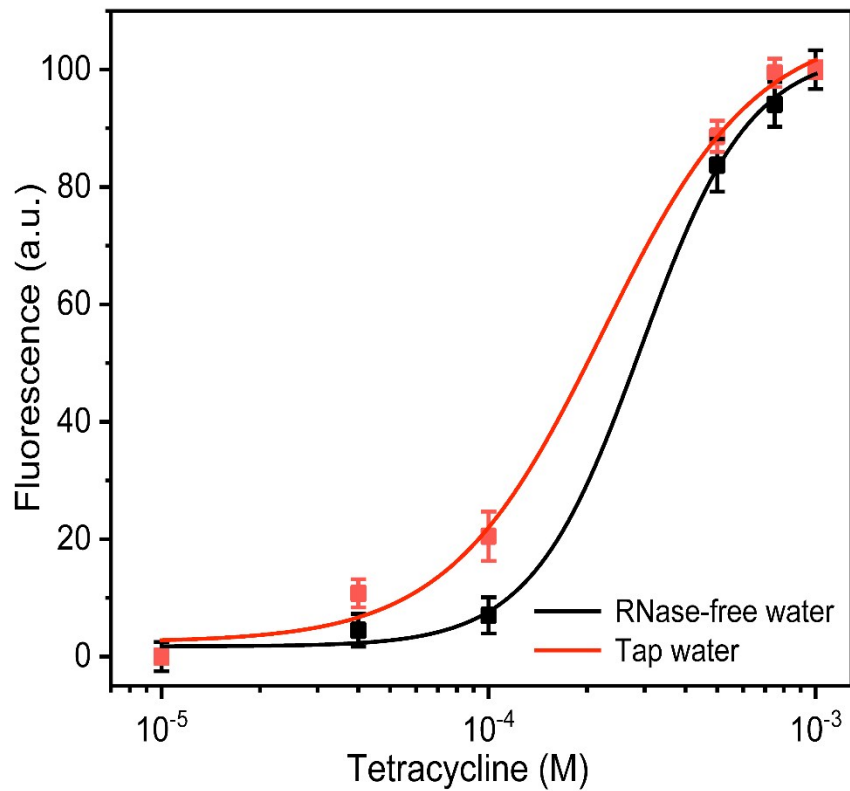

Figure S2. Dose-response curve for the fluorescence detection of tetracycline in RNase-free buffer and tap water sample. Fluorescence signal at each tetracycline concentration was measured after 30 min incubation. Shown are mean and SD values of three independent replicates.