

## **Supplement data**

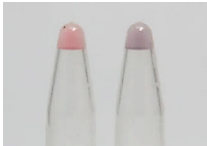


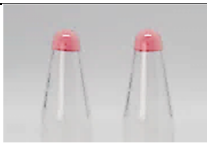

### **Rapid Apta-Chromogenic Detection Method for Nitrofurantoin Metabolite Determination**

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## **SUPPLEMENT Data**

- Supplemental Data S1** Nucleotide sequence of ssDNA aptamer to AOZ. Colorimetric detection of AuNPs – aptamer to AOZ was demonstrated. The number of identical nucleotide sequences with each round of SELEX screening is shown.
- Supplemental Data S2** Colorimetric determination of AuNPs solution: 1) solution of AuNP with NaCl; 2) solution of AuNP – aptamer complex in the presence of NaCl; and 3) solution of AuNP - aptamer complex in the presence of NaCl and AOZ.
- Supplemental Data S3** Single-stranded DNA aptamer specific to nitrofurans metabolites, including (A) 3-amino-5-morpholinomethyl-1,3-oxazolidin-2-one (AMOZ) and (B) 1-amino-hydantoin (AHD), with limits of detection of 0.06 ppb and 10 ppb, respectively.
- Supplemental Data S4** Comparison of different techniques for the detection of nitrofurans or AOZ in aquatic animal products.

## Supplement Data S1

Number of identical sequences	AuNPs colorimetric test	Aptamer clone
9		7 <sup>th</sup> round: 3 clones 9 <sup>th</sup> round: 2 clones 10 <sup>th</sup> round: 4 clones
2		6 <sup>th</sup> round: 2 clones
2		6 <sup>th</sup> round: 2 clones
2		7 <sup>th</sup> round: 2 clones
2		6 <sup>th</sup> round: 2 clones

### Supplement Data S2



1

2

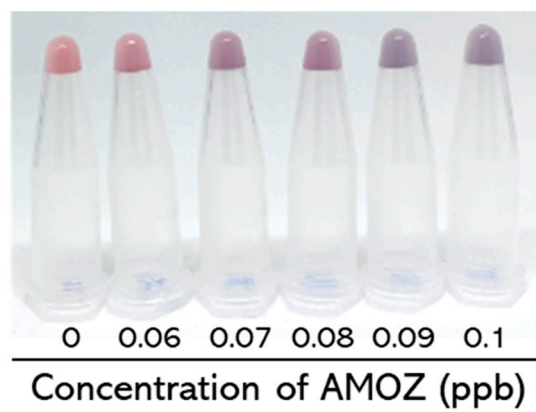
3

1 = AuNP + NaCl

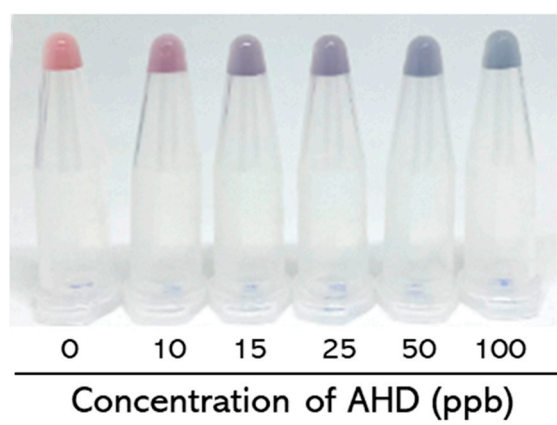
2 = AuNP-Apt + NaCl

3 = AuNP-Apt + AOZ + NaCl

### Supplement Data S3



(A)



(B)

### Supplement Data S4

No.	Name of the antibiotic	Type of technique	Biorecognition element	LOD	Reference
1	Nitrofuran	Liquid Chromatography-Photodiode Array Detection (UPLC-DAD)	2-nitrobenzaldehyde (2-NBA)	0.25–0.33 µg/kg	Wang <i>et al.</i> , 2003
2	Nitrofuran	High-performance liquid chromatography with a diode-array detector (HPLC-DAD) and liquid chromatography-tandem mass spectrometry (LC–MS/MS)		0.2–0.4 µg/L	Yu <i>et al.</i> , 2013
3	3-amino-2-oxazolidinone (AOZ)	Enzyme-linked immunosorbent assay (ic-ELISA)	2-nitrobenzaldehyde (2-NBA)	0.15 and 0.3µg/kg	Liu <i>et al.</i> , 2010
4	Nitrofuran	High Performance Liquid Chromatography Diode Array Detection (HPLC-DAD)		1 µg/kg	Fernando <i>et al.</i> , 2017
5	3-amino-2-oxazolidinone (AOZ)	Apta-Chromogenic Detection		0.03 µg/kg (ppb)	This work