

**Table 1: Binding and fluorescent properties of Mango and Peach Aptamers.**

Aptamer	Sequence (cores in bold/underline)	TO1-B (ex:510/em:353)		TO3-B (ex:637/em:658)		YO3-B (ex:595/em:620)		References
		Kd (nM)	Brightness (M <sup>-1</sup> cm <sup>-1</sup> )	Kd (nM)	Brightness (M <sup>-1</sup> cm <sup>-1</sup> )	Kd (nM)	Brightness (M <sup>-1</sup> cm <sup>-1</sup> )	
Mango I	G GCA CGU AC <u>G</u> <b>AAG</b> <b>GGA</b> <b>CGG</b> <b>UGC</b> <b>GGA</b> <b>GAG</b> <b>GAG</b> <u>AGU</u> ACG UGC	2.2 ± 0.3	10,900	5.1 ± 0.3	<b>9,500</b>	26	ND	1, 2, 3
Mango II	G GCA CGU AC <u>G</u> <b>AAG</b> <b>GAG</b> <b>AGG</b> <b>AGA</b> <b>GGA</b> <b>AGA</b> <b>GGA</b> <b>GAG</b> UAC GUG C	0.7 ± 0.3	17,000	1.8 ± 0.1	<b>16,900</b>	ND	ND	1, 2
Mango III	G GCA CGU AC <u>G</u> <b>AAG</b> <b>GAA</b> <b>GGA</b> <b>UUG</b> <b>GUA</b> <b>UGU</b> <b>GGU</b> <b>AUA</b> UUC GUA CGU GCC	5.6 ± 0.2	43,000	15 ± 1	<b>11,000</b>	ND	ND	1, 2
Mango III (A10U)	G GCA CGU AC <u>G</u> <b>AAG</b> <b>GAA</b> <b>GGU</b> <b>UUG</b> <b>GUA</b> <b>UGU</b> <b>GGU</b> <b>AUA</b> UUC GUA CGU GC	1.7 ± 1.0	51,200	160 ± 20	8,000*	120 ± 10*	47,600*	2, 4
Mango IV	G GCA CGU ACC <b>GAG</b> <b>GGA</b> <b>GUG</b> <b>GUG</b> <b>AGG</b> <b>AUG</b> <b>AGG</b> <b>CGA</b> GUA CGU GC	11 ± 1	32,000	10 ± 1	<b>18,700</b>	ND	ND	1, 2
Peach 1	G GAA UCC CUG <b>AAG</b> <b>GAU</b> <b>GUG</b> <b>GGG</b> <b>GAG</b> <b>GGA</b> <b>GAA</b> GGG AUU CC	43 ± 4	4,400	20 ± 1	17,800	22 ± 1	77,300	5*
Peach 2	G GCG UAA GGU <b>UAA</b> <b>AAG</b> <b>GUG</b> <b>UGG</b> <b>ACG</b> <b>AUG</b> <b>GUG</b> <b>GGA</b> <b>GAC</b> CUU ACG CC	220 ± 20	5,500	71 ± 6	12,900	190 ± 10	54,400	5*

\*Not published. **Red**, determined through comparative data in references.

**Table 2: Resistance properties of Mango Aptamers.**

Aptamer	Formamide* (maintains >75% RFU)	Formaldehyde <sup>1</sup> (maintains >75% RFU)	Mg <sup>2+</sup> Resistance <sup>1</sup> (maintains >75% RFU)	Cell Imaging Use	RNA Pulldown	Transcription Reporting
Mango I	Up to 12%	4%	Up to 8 mM	NA	7	NA
Mango II	Up to 34%	8%	Up to 260 mM	1,6	NA	NA
Mango III	Up to 8%	0%	Up to 130 mM	NA	NA	8, 9, 10
Mango III (A10U)	ND	0%	Up to 130 mM	NA	NA	NA
Mango IV	Up to 12%	0%	Up to 260 mM	1	NA	8

\*Not published.

## References

1. <https://www.nature.com/articles/s41467-018-02993-8>
2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7377909/>
3. <https://www.nature.com/articles/s41467-017-02435-x>
4. <https://www.nature.com/articles/s41589-019-0267-9>
5. <https://rnajournal.cshlp.org/content/early/2021/03/05/rna.078493.120>
6. <https://www.nature.com/articles/s41467-020-14932-7>
7. <https://rnajournal.cshlp.org/content/23/10/1592.short>
8. <https://www.nature.com/articles/s41467-019-12299-y>
9. <https://www.nature.com/articles/s41467-019-10958-8>
10. <https://www.nature.com/articles/s41589-020-00653-x>