



DNA Aptamer against Tyramine

SKU# APT-045: DNA Aptamer against Tyramine

Background

Tyramine is a biogenic amine (BA) mainly produced in fermented food and beverages by the decarboxylation of the amino acid tyrosine carried out by *Enterococcus* and/or *Lactobacillus* microorganisms possessing the enzyme decarboxylases. Tyramine, together with histamine, is considered as the most toxic BAs and particularly relevant for food safety, although recently tyramine has been shown to be more cytotoxic than histamine. Common to all BAs, an excessive oral intake of tyramine can induce adverse reactions, such as nausea, headaches, rashes, and change in blood pressure. In addition, tyramine has been identified as an initiator of hypertension during treatment with monoamine oxidase inhibitor drugs and of dietary-induced migraine in susceptible individuals.

Aptamer type: DNA aptamer

Aptamer length: 69 bp

Affinity KD: 97 ±37 nM

Kit contents

The following components are included in the Kit.

	Component	Quantity
APT-045-10	Single strand DNA, lyophilized powder	10 nmol
APT-045-30	Single strand DNA, lyophilized powder	30 nmol

- Store at -20°; reagents are guaranteed stable for 12 months when properly stored.

References

Valenzano, S., et al., Screening and identification of DNA aptamers to tyramine using in vitro selection and high-throughput sequencing. *ACS Combinatorial Science* 2016, 18(6): 302-313