Direct Thiaminase Measurement Method

Drew Porter Cody Pinger

2025-03-13

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0.1 Introduction

Source: Article Notebook

The ten minute detection limit was 4.95 nmol g^{-1} min^{-1}

The thirty minute detection limit was 1.65

0.2 Methods

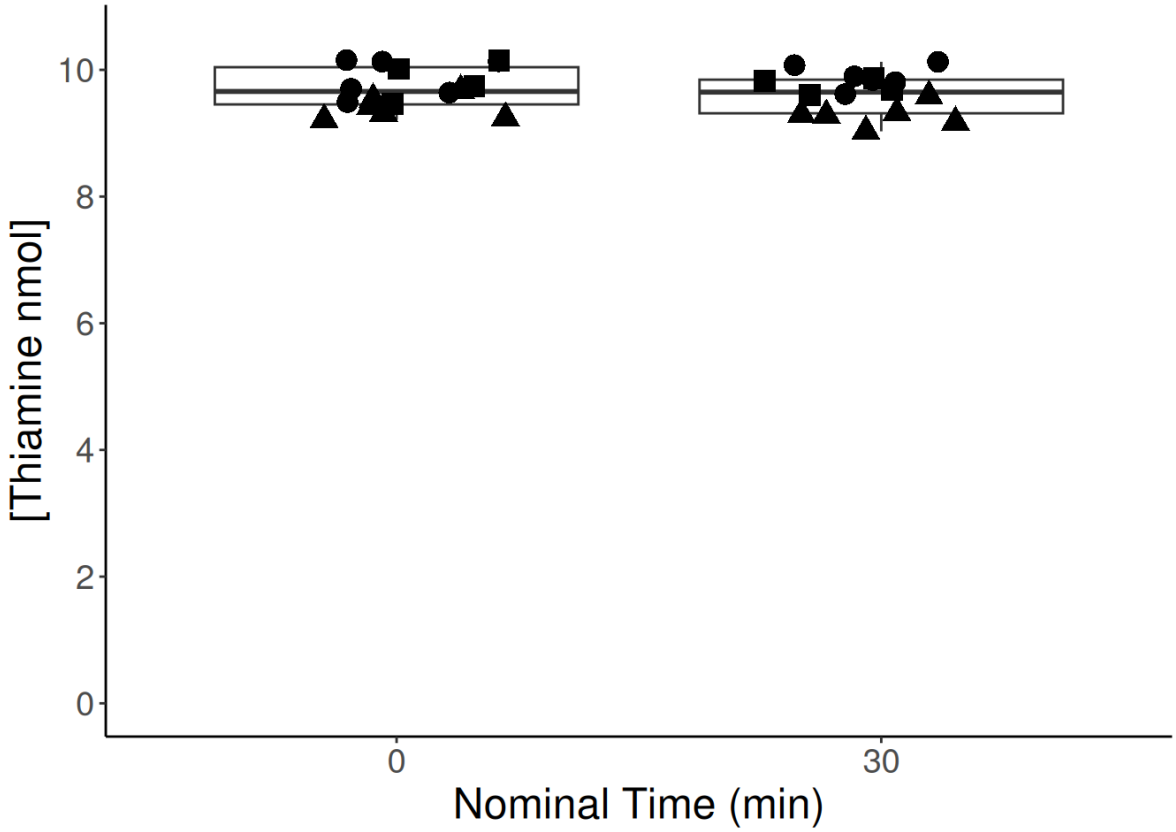

Figure 1: Thiamine concentrations in SRM 1946 before and after 30 min incubation show no significant change (paired t-test, $p = 0.36$). Different shapes represent measurements from separate analysis days.

Source: Limit of Detection

as you can see in Figure 1

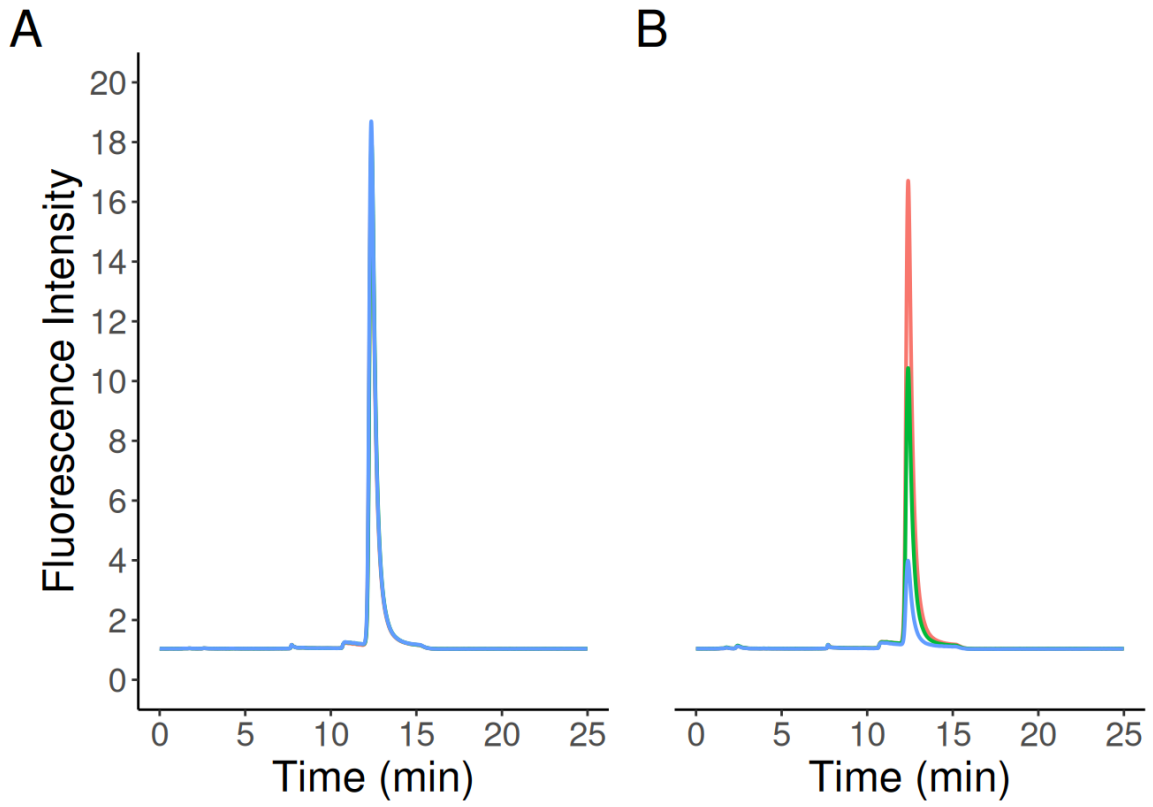

Figure 2

Source: hplc_chromatogram

$$-1 \times \frac{\text{nmol Thiamine}_{\text{Final}} - \text{nmol Thiamine}_{\text{Initial}}}{(\text{Time}_{\text{Final}} - \text{Time}_{\text{Initial}}) \times 0.01 \text{ g Fish}} \tag{1}$$

$$v = \frac{V_{max}[S]}{K_m + [S]} \tag{2}$$

$$v = \frac{V_{max}[S]^n}{K_{half}^n + [S]^n} \tag{3}$$

Equation 1

[1]

[2]

0.3 Results and Discussion

0.4 Conclusion

References

[1] J. W. Hanes, C. E. Kraft, T. P. Begley, *Analytical Biochemistry* **2007**, *368*, 33–38.
[2] C. E. Kraft, E. R. L. Gordon, E. R. Angert, *PLoS ONE* **2014**, *9*, e92688.