Letters

An Updated Kinetic Study of the Enzyme Lactase for the Biochemistry Laboratory

In 1986, Russo and Moothart (1) published a kinetic experiment for the enzyme lactase using Lact-Aid solution as the source of the enzyme. Lactase is now available in a much more convenient tablet form as Lactaid Fast Act tablets. We have found that using the tablet form gives identical results to those of the solution. One tablet of Lactaid Fast Act is dissolved in 200.0 mL of distilled water and stored at 4 °C. Following the exact procedure of Russo and Moothart, the $K_{\rm M}$ value was 0.9×10^{-3} mol/L (with a $V_{\rm max}$ of 0.2 absorbance/min). This value compares nicely with the $K_{\rm M}$ values reported in the Russo and Moothart article $(1.7 \times 10^{-3} \, {\rm mol/L})$ and from the source for the enzyme, Aspergillus oryzae $(0.72 \times 10^{-3} \, {\rm mol/L})$ (2). Specific details regarding assay preparation are available upon request.

Literature Cited

- 1. Russo, S. F.; Moothart, L. J. Chem. Educ. 1986, 63, 242-243.
- Tanaka, Y.; Kagamiishi, A.; Kiuchi, A.; Horiuchi, T. J. Biochem. 1975, 77, 241–247.

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