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Letter to the Editor

Assay of adenosine deaminase isoforms by HPLC

To the Editor,

The HPLC method for the separation of adenosine, inosine and erythro-9-(3-nonyl-*p*-aminobenzyl-adenine) [EHNA] reported by Paul et al. [1] describes a useful system for the study of adenosine deaminase isoforms.

I was surprised, however, to find that there was no mention of hypoxanthine in this study. In body fluids and tissue extracts the presence of purine nucleoside phosphorylase will further break down the inosine to hypoxanthine. Thus, to measure adenosine deaminase both products must be assayed [2].

Due to this complication the assay of the ammonia liberated during the reaction is preferred, this system utilises the low cost Berthelot reagent [3].

Maximum sensitivity can be obtained by utilising the optimised colour reagents and substrate/serum ratio used by Jones et al. [4] for the assay of cytidine deaminase which was later applied to guanine deaminase [5]. The Berthelot method has also been ratified for the estimation of AD2 using 20 mM adenosine as a substrate and 0.1 mM EHNA as inhibitor [6].

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Elton L. Roberts*
Biochemistry Department, Pathology Department, Bronglais Hospital, Aberystwyth, Ceredigion SY23 1ER, UK

* Tel.: +44 1970 635785; fax: +44 1970635323.
E-mail address: elton@allspice.demon.co.uk

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