

## **Fluorescent polarization immunoassay for sulphadiazine using a high specificity antibody**

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### **Abstract**

A rapid and sensitive fluorescent-labelled polarization immunoassay for sulphadiazine (SDZ) is reported. Fluorescein-labelled tracers were synthesized and a specific SDZ antibody has been used in the development of the method. The influence of the fluorescent label type on the immunoassay sensitivity was investigated. Homologous and non-homologous tracer - antiserum combinations were varied to provide increased sensitivity of the immunoassay. A detection limit of 0.2 ng mL<sup>-1</sup> for SDZ in 50 µL aqueous sample has been achieved. The cross-reactivity of other sulphonamide drugs has also been examined.

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### **Keywords**

Competitive immunoassay, Fluorescent label