ABSTRACT

DECONTAMINATION OF NUCLEIC ACID AMPLIFICATION REACTIONS

Methods for inactivating contaminating amplicons in isothermal nucleic acid amplification reactions such as SDA, Qβ and 3SR. dU is incorporated into the amplicons produced by amplification in the place of thymine (T). If these amplicons contaminate a subsequent amplification reaction, they may be inactivated as templates (i.e., rendered unamplifiable) by treatment with UDG. As isothermal amplification does not involve elevated temperatures, the UDG may be inactivated during the subsequent amplification of specific target sequences by inclusion of the UDG inhibitor protein Ugi. Incorporation of dU has unexpectedly been found to enhance the amplification power of SDA as compared to conventional SDA reactions. The methods may also be used to detect UDG activity in reagents or samples.

This Sheet Has Been Replaced

