Dengue infection became a national public health problem after a DEN-1 epidemic occurred in 1986 in Rio de Janeiro State. In 1990 DEN-2 was introduced into Rio de Janeiro and today the circulation of both serotypes is confirmed in most of states of Brazil, including the Federal District. In January 2001, DEN-3 was first isolated in the country from an autochthonous case, living in the State of Rio de Janeiro. During the first four months of 2002, the survey laboratory of the Federal District (LACEN) isolated six strains of dengue virus serotype 3, five of them from cases imported from Rio de Janeiro State and one from Bahia State. In 2003 the virus was isolated from five autochthonous cases. The virus isolations were performed in C6/36 cell culture inoculated with total blood collected between the 1st and the 5th days after the onset of the symptoms. The strains were typed as DEN-3 by indirect immunofluorescence assay using serotype – specific monoclonal antibodies. Viral RNAs were extracted from total blood using the Trizol method. The nested RT – PCR method of Lanciotti et al. (1992) detected DNA products of 290 base pair, confirming the previous serotype identifications. The introduction of DEN-3 in the Federal District represents a serious threat, since most people are susceptible to this serotype and many have already been infected by serotypes 1 or 2, thus increasing the risk of epidemic of the more severe forms of the disease. The use of a fast and reliable method for continuous monitoring of the circulation of this serotype is of primary importance for the prevention and control of future epidemics.

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DEN-3 in Federal District, Brazil

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