Branched DNA: a novel technique for molecular diagnostics in bone studies

ABSTRACT

Recently, there are increasing applications of molecular techniques for molecular diagnostics in bone studies. Bone is a mineralized tissue containing an abundant matrix, which makes RNA isolation difficult. The most common technique used for molecular diagnosis in bone disease is reverse transcriptaseï polymerase chain reaction (RT-PCR) sequence amplification assay. Currently, there is an in-creasing use of the branched chain DNA (bDNA) signal amplification technology. This article provides an overview of bDNA technology for molecular diagnostics in bone studies. Molecular diagnostic assays using bDNA technology for detection of gene expressions are sensitive, specific and reliable tools in the detection of genes involved in bone diseases such as osteoporosis.

Keyword: Branched DNA; Osteoporosis; Molecular diagnostics; Bone