The structure of the regulatory region of the rat L1 (L1Rn, long interspersed repeated) DNA family of transposable elements.

Abstract

Here we report the DNA structure of the left 1.5 kb of two newly isolated full length members of the rat L1 DNA family. Analysis of the left 1.5 kb of the leftmost copies of both of these sequences, by restriction mapping and sequencing, demonstrated that these sequences are related to the left 1.5 kb of the L1Rn DNA of the yelloweyed gecko, Gekko gecko. This also serves to locate the 5'-untranslated regions of the L1Rn DNA family. Furthermore, two copies of the L1Rn DNA family, containing the left 1.5 kb of the leftmost copies of both of these sequences, when fused to the Escherichia coli chloramphenicol acetyltransferase gene, function as a promoter in rat cells, and only the rat cellular sequences can function as a promoter in rat cells when fused to the Escherichia coli chloramphenicol acetyltransferase gene.