
Hamster line and ALU-equivalent sequences are present in the small polydispersed circular DNA population of CHO cells

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While screening a library (1) of hamster short polydispersed circular (SPC) DNA molecules for sequences mobilised by γ -radiation we found a sequence homologous to the mouse L1Md family. As the hamster equivalent of this LINE family has not yet been reported we determined the sequence (shown below) of the 1071bp insert of SPC clone 14 which strongly hybridised to the mouse probe (pMRB1-3 ref 2). Nucleotides 155-910 have 70% homology with both mouse L1Md (nts. 5074-5822, ref3) and rat L1Rn (nts. 4720-5468, ref 4) family members. SPC14 must therefore contain part of a member of a hamster LINE equivalent (L1Cg) family. Type1 Alu-equivalent sequences were found to be present on the inserts of clones12 and B11, which hybridised strongly to an Alu-equivalent probe.

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1  GTGAGCCTCG  CCTTTAACGG  CTGAGCATCT  CTCAGCCCA  TCTTGATTA  ACTTTGGTAA  GTGATATCTA  TCCAGAAAAT  TGCCATTC
91  CTTTAGATTT  TCAAAATTTG  TGGAGTACAG  GTTTTTTCAA  TGTATGACCT  GATGATTCTC  TGGATTCTCA  AAAAAATCAG  AAGTCCTACT
181 ATATCGAGAA  GATAACTGCA  CTGAGAAGA  AACCAGAGAA  AGATCACTCA  TTACAATATC  AACTAACCAAC  ATAAAATATC  TTAAGGCAAC
271 ACTAACCAAA  TGAGAAAGAC  CTGTATAGTA  AGAAGTTTGA  ATCTTTAAAG  AAAGAAATTA  AAGAAGATAC  CAGAAAATGG  AAGATCTTC
361 CATGCTCTGG  GATAGTAGG  ATCATCATAG  TAAAAATGGC  AATCTTGCCA  AAGGAATCTA  CAGATTGAGT  GCAATCCCCA  TCAAAATCAC
451 AACACAGTTC  TTCACAGACC  TTGAGAAAGA  ACAGTACTCA  GTTTCATATG  GAAAAACAAA  AAACCCAGGA  TAGCCAAAAC  AACCCGTGAC
541 AATAAAGAAA  CTTCTGGAGG  CATCATCATT  CCTTACTTCC  AGACTCCATT  ATAGAACCCA  TAGTCTGAA  AACAGCTTGG  TATTGGCAAA
631 AAAAAAAATT  GACAGATAGA  CCAATGGAAT  CTAGTTGAAA  ACCCTGATAT  ATTAACCCAC  AAACCTATGA  ACACCTTGIT  TTTTGTCAAA
721 GAAGCTAAAG  TTATACAACG  TAAAAATGAA  ATCATCCTCA  ATAAATTTG  TTGGCATAAC  TAGATTGGGA  CATGTAGAAG  ATTGAAGATT
811 GATCCATATG  TATAACCATG  CACTAAACT  AACTCCAAAT  GGATCAAAGA  CCTCAACATA  AATTGAGCTT  CCTGAACCTC  CTAGAAGAGA
901 AGGTAGATGG  AACAGGAGAC  TGCTTTCTGA  ACATAACCC  AGTAGCACCA  AACATTGGGA  TGATCTGGCC  CTGGGTTTTT  TTGGTTGGTA
991 GATTTTTTGA  TGATGGCTTC  TATTTCATTA  GGGGTTATAG  GTCGTGTTAA  ATTGCTTTTC  TTCTTGAIT  TAATTTGGT  T

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