

# Two sequence-tagged sites defining the ends of a 380 kb YAC clone from 19q13

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Submitted March 12, 1991

EMBL accession nos X57788 and X57789

The genetic markers D19S51 (1) and ERCC-1 (2) flank the myotonic dystrophy locus on chromosome 19q13 and define a region of approximately 1 Mb in the human genome within which the gene responsible for this autosomal dominant disease resides. Partial sequencing of the D19S51 locus has allowed screening of a gridded yeast artificial chromosome (YAC) library (3) with a view to assembling a YAC contig for this region. Sequencing of both ends of the insert in a YAC (8IC8) identified in this manner (4) has generated two sequence-tagged sites for D19S51 separated by 380 Kb in the human genome (Figure 1a, 1b; sequences of PCR primers are underlined). The right hand end probe defines a single 400 bp EcoRI-AluI fragment. The left hand end probe defines a single 700bp EcoRI-PvuII genomic fragment.

#### PCR Primers:

Right hand end forward 5'd CAGTAGAGATAGGGTTTCACCATGTTGG  
Right hand end reverse 5'd TTGCCTATAATTCIGCACTTTGGGAGG  
Left hand end forward 5'd AACTTCTCTGAATCTCAGTTTT  
Left hand end reverse 5'd ATCTCTCAACAGGTACAAGGA

**PCR Reactions:** 50 ng human genomic DNA, 70 pM each primer, 100 μM dNTPs, 2 U Taq polymerase (Perkin Elmer Cetus) in 100 μl of 50 mM KCl, 10 mM Tris- HCl, pH 8.3 (at room temperature), 1.5 mM MgCl<sub>2</sub>, 0.1% (v/v) gelatin with 50 μl mineral oil overlay.

**PCR Profile:** 92°C for 2 minutes; 60°C for 2 minutes; 72°C for 3 minutes for 35 cycles.

#### (a) YAC 8IC8 Right Hand End.

1 CAGTAGAGAT AGGGTTTCAC CATGTTGGCC AGGCTGGTCA AGAACTCCTG  
51 ACCTTAGTG ATCCACCCAC CTCGACCTCC CAAAGTGCNG AAATTATAGG

101 CAA

#### (b) YAC 8IC8 Left hand End.

1 AACTTCTCTG AATCTCAGTT TAAAAATCTG TAAAATACAG ATGATGATAC  
51 TTACAATGGA GTTCTTAGAA TANATGATAG TATGTAGGT GCATGCCATA  
101 TTTTGAAGTG TTCAACNAAC AATCATAATA CTAGAACCTTT CTTTTTATTI  
151 CCTTGACCT GTTGAGAGAT AAGGCCATAA GG

**Figure 1.** (a) YAC 8IC8 Right Hand End. (b) TAC 8IC8 Left Hand End

## REFERENCES

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