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Sequence of a region near the left end of bacteriophage T3 DNA that contains three promoters for the *E. coli* RNA polymerase

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The early genes of bacteriophages T7 and T3 are transcribed by E. coli RNA polymerase from a cluster of three promoters that lie near the left end of the genome (1,2). We have sequenced the early control region of T3 DNA and have compared it with the corresponding region of T7 DNA (Fig. 1). Three potential promoters for the E. coli RNA polymerase (designated A1, A2 and A3) are apparent from their homology to the A1, A2 and A3 promoters of T7, as well as by their homology to the consensus sequence for other E. coli promoters (4).

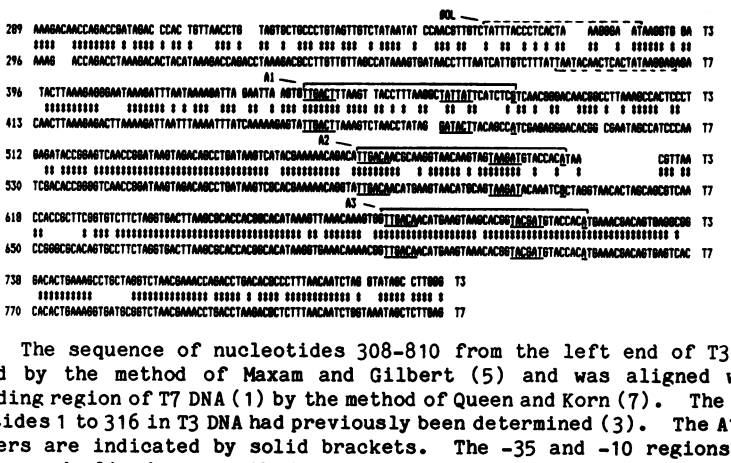

Figure 1. The sequence of nucleotides 308-810 from the left end of T3 DNA was determined by the method of Maxam and Gilbert (5) and was aligned with the corresponding region of T7 DNA (1) by the method of Queen and Korn (7). The sequence of nucleotides 1 to 316 in T3 DNA had previously been determined (3). The A1, A2 and A3 promoters are indicated by solid brackets. The -35 and -10 regions in each promoter are underlined, as are the known or potential start sites. Promoters for the T7 and T3 RNA polymerases (ϕOL) are enclosed in dashed brackets (1,7,8).

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