

Nucleotide sequence of a 25S rRNA gene from tomato

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A complete ribosomal RNA (rRNA) operon from tomato (*Lycopersicon esculentum* Mill) has been cloned (1), mapped and partially sequenced. Here we present the primary structure of one 25S ribosomal gene. The nucleotide sequence was determined by the dideoxy method in combination with unidirectional digestion with exonuclease III (2).

GCGACCCGAG	GTACAGCGGG	ATTACCCGCT	GAGTTAAGC	ATATCAATAA	GCGGAGGAAA	AGAACTTAC	AAGGATTCCC	CTAGTAACGG	CGAGCGAACC	100
GGGAACAGCC	CAGCCTTAGA	ATCGGGCCGC	TCCGTCGCTC	GAATGTGAGT	CTGAGGAGCC	GTACTCAGCC	GCGAGCCGGG	CCCAAGTCCC	TGGAAAGGGG	200
CCCGGAGGG	GTAGAGAGCC	CTCTGTCCCC	GAACCTGTC	GCACCCGAG	GGCTCTCTA	CGAGTCGGT	TUTTTGGGAA	TGCAGCCAL	ATCGGCGGT	300
GAATTCGCT	CLAAGCTAAA	TACTGGCGAG	AGACCGTAG	CGAACAAATA	CCCGAGGGA	AGAGTGAATA	GGACTTTGAA	ANAGAGTCA	AGAACTGCTT	400
GAATTTGCG	GGAGGGAGCC	GGATGGGGCC	CGGGCATGCG	CCCCCGTCGG	ATGTGGAAAG	CGCAGGAGCC	GGTCCGCCGA	TCAGCTCGGG	GGGTGGACCA	500
GCGTGGATG	GGGGGGGGCC	CAGAGCCGCG	GGCTCCGATA	CGCCCGTGG	ACGCCCTCTC	CCCGATTGTG	GAAGGACGCG	CGCCGCTCCG	GCCTGCTTCG	600
GCATCTGCC	GCTCCGGAGC	TGGGCTTGG	GGCTCCCAT	TCGACCCGTC	TTGAAACAGC	GACCAAGGAG	CTTGACATGT	GTTCGAGATG	ACGGGCGAGT	700
AAACCCGTA	GGCTGAAGGA	AGCTGATTGG	TGGGATCCCC	TGAGGGTGGC	CCGCCGAGCC	ACCTTGAATC	TCTGAGAGGG	GTTCGAGTGT	GAGCATACCT	800
GTCCGGACC	GAAAGATGT	GAATATGTC	TGACGGGCG	AGCCCGAGG	AAATCTGTGT	GGAGCCCGC	AGCGATCTG	ACCTGCAALT	CTTCTCGCTG	900
ATTGGGATA	GGCGAALGA	CTAATGGAAC	CGTCTAGTAG	CTGGTCCCTC	CCGAAATTTT	CCTCAGGATA	CTGTGAGCTC	CGCTGCGAGT	TCTATCGGTT	1000
AAAGCCAAATG	ATTAGAGGCC	TCGGGGCGCA	AGCCCTCGA	CCATTCTTC	AAACTTTAAA	TAGGTAGGAC	GGCCGGGCTG	CTTGTGGG	CCCGCCAGC	1100
GAATCAAGAG	CTCCAAATGG	GCCATTTTG	GTAAGCAGAA	CTGGCGATGC	GGGATGAACC	GGAAAGCGG	TTACGTGCC	AAACTCGCC	CTAACCTAGA	1200
TCCCAAGAAG	GGTGTGGCT	GATTAGAACA	CGAGGACGTT	GGTCATGGAA	GTCCGAAATC	GCTAAGGAGT	GTGTAAACAC	TCACCTGCGC	AATCAACTAG	1300
CCCCGAAAT	GGATGGCCCT	TAGCGCCGCG	ACCTTACACC	GGCCGTGGGG	GCAAGTGGCA	GGCCCGGATG	AGTAGGAGGG	CGCGGGGCTC	GCTGCAAAAC	1400
CTTGGCCGC	AGCCTGGGCG	GAGCGCCCT	CGGTGAGAT	CTTGTGTGTA	TGCAATAT	TCAAATGAG	ACTTTGAGG	CCGAAAGGG	AAAGTGTAT	1500
GTGACAGCA	CTTGCACATG	GGTTAGTCGA	TCCTAAGGTT	CGGGAAACCC	CGACAGATAG	CGCTTTCGCG	CGCTACTCCG	AAAGGGAACT	GGGTAAAAT	1600
TCTGAAAGCC	GGACCTGAGC	GTGACGGCA	CCATTAGGAA	GTCCGGAGAC	GTCCGGCGGA	GAGTTATCTT	TCTGTTTAA	CAGCCTGCC	1700	
ACCCTGGAAT	CGGCTCAGCC	GAGGTAGGG	TCCAGCGCT	GGAAAGCGTC	CGGCTGTOTC	CGCACGGTCC	CGTCCGCTCC	GGCCGGCTCC	CGCGGACCTC	1800
GGAGGACGA	ATGCCGTTCC	ACGCCCGGTC	GTACTATAA	CCGCATCAGG	TCTCCAAGTT	GAACAGCCTC	TGCTCGATGG	AACAATGTAG	CGAAGGGAG	1900
TCGGCAAAAT	GGATCCGTAA	CTTCGGGAAA	AGGATTTGCT	CTGAGGGGCTG	GGCACGGGG	TCCCAAGTCC	GAACCCGCTG	CGTCTCGGTC	GATCCCTCGA	2000
GCTGCTCCG	CGCGGAGAGC	GGTCCGCGC	GTGCGCGCC	GGGACCGAG	TGGACAGCT	TCTCTCGGG	GCTTCCCGC	GGCTCGGAGC	AGCCAACTCA	2100
GAATCTGAT	GGACAGAGGG	AATCCAGCG	TTTTAATAA	ACAAAGCAT	CGCATGTCC	CAAGGATGT	TGTACCAATG	TGATTTTCG	CCAGTGCTCT	2200
GAATGTCAA	GTGAGAAAT	CAACCAAGC	GGGTAATAC	CGGGGATGA	CTATGACTCT	CTTAAGTACT	CCAAATGCT	CTCATCTGA	TTAGTGAGCC	2300
GCATGAAATG	ATTACCGAG	TCCCAACTGT	CCCTGTCTAC	TATCCAGCGA	AACCAACGCC	AAGGAGACG	GCTTGGCAGA	ATCAGCGGG	AAAGAAGCC	2400
CTGTGAGCT	TGACTCTAGT	CCGACTTTGT	GAATGACTT	GAGAGGTGTA	GTATAAGTGG	GAGCCGAAAG	GCGAAAGTGA	AATACCACTA	CTTTAAAGCT	2500
TATTTTACTT	ATTCGCTGAA	TCGGAAAGGG	GGCACTGCC	CTCTTTTGG	ACCCAAGGCT	CTTCCGGGCG	CGATCCGGG	GGAGAGACT	TCAGTGGGG	2600
AGTTGGCTG	GGCGCGACA	TCTTTTAAA	GATLACGCA	GTGTCTTAG	ATGAGCTCAA	CCGAGACGA	GACGAAATCT	CGTGTGGAGC	AGLAACTGA	2700
AGCCCTCGT	TGATTTCTGA	TTTCCGAGTA	CGAATACGAA	CCGTGAAAGC	GTGGCTTAA	CGATCTCTTA	GACTCTGAGT	ATTCGAGCT	ATGAGGTGTA	2800
GAATGATAC	CACAGGGATA	ACTGGCTGT	GGCAGCAAG	CGTTCTATGC	GACGTTGCTT	TTGTATCTT	CGATCTCGC	TCTTCTATC	ATTGTGAAGC	2900
AGAAATCAC	AAGTGTGGA	TGTTTACCC	ACCAATAGGG	AACGTGAGCT	GGGTTAGAC	CGTCTGAGC	GAGGTTAGT	TATCCCTACT	GATGACAGTG	3000
TGCAATAGT	AATTCACCT	AGTACAGCT	GACCCGTTGA	TTACACAAAT	TGGCCATCGC	GCTTGGTTGA	AAACCCAGTG	GGCCGAGCT	ACCGTGTGCT	3100
GGATTTAGC	TGAAAGCCCT	TAAATGAGAA	TCGGGCTGA	AAGCGAGCA	TGGCCCGCGC	AGCTGCTTGC	CGACCCGAGT	TAGGGGCGCT	GCCCGAAGGG	3200
CACGTGCTG	TGCTTAGCT	CGCCGAGCG	AAGCCGTGCA	CCGCTTGA	TGACAATTC	CATCCAGCGC	CGGATGAGT	CTTTCGAGA	CGACTTAAAT	3300
ACGCGACGG	GTATTGTAG	TGGCAGAGTG	GCTTCTCGC	CAGATCCAC	TGAGATTGAC	CCCTTTGCG	CTCCGATTGC	T		

Fig. 1. Nucleotide sequence of a tomato 25S rDNA. The RNA-like strand is shown. The 5' terminus and the 3' terminus of the 25S rRNA are shown in analogy to those of rice (3) and have not been determined experimentally.

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