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Nucleotide sequence of the *Escherichia coli purF* gene encoding amidophosphoribosyltransferase for *de novo* purine nucleotide synthesis

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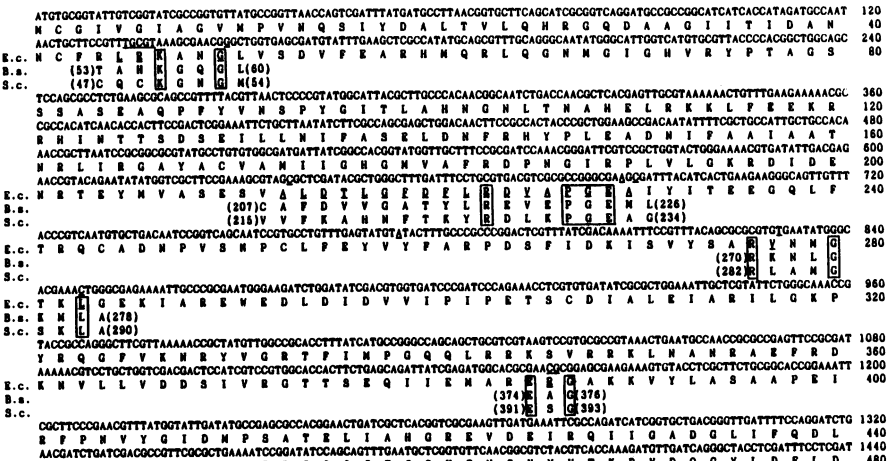
The 1512 bp sequence of the E. coli purF gene encoding amidophosphoribosyltransferase (ART, EC 2.4.2.14) has been reported (1). We have also determined the nucleotide sequence of the wild type purF gene from E. coli strain W3110 and found several discrepancies with the sequence previously reported. The purF gene consists of 1515 bp instead of 1512 in length. Insertion of 3 bp can be seen in positions C-638, A-687 and C-689 and consequently, requires a change in the coding frame from nucleotides 637-690. Additionally, 12 other discrepancies are observed as shown in the figure. When the deduced amino acid sequences of ART from E. coli (E.c.), B. subtilis (B.s.)(2) and S. cerevisiae (S.c.) (3) are compared, the altered sequence gives much more similarity to the sequences of B.s. and S.c. than the reported one does. Therefore, the discrepancies observed are not probably due to the difference of E. coli strain used in the experiment.



The bases and amino acid residues changed are underlined. Partial amino acid sequences of ART from B.s. and S.c. are from references (2) and (3). The identical amino acid residues between the three organisms are boxed.

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