The psaC is found in chloroplast genomes of higher plants, tobacco (1), liverwort (2), barley (3), maize (4), pea (5) and wheat (5). It encodes a photosystem-I associated polypeptide, designated as Subunit VII, 9 kDa subunit, PsaC, etc., presumably the apoprotein for iron-sulfur clusters, Centers A and B. We previously reported a partial N-terminal amino acid sequence of Subunit VII of a thermopholic cyanobacterium, *Synechococcus vulcanus* (6). Here, we report the isolation and the nucleotide sequence of a *Synechococcus* genomic library cloned into lambda-dash, which has homology to a tobacco psaC DNA probe.

Nucleotide sequencing of a fragment revealed that the *Synechococcus vulcanus* psaC gene consists of 81 codons, the same length as the tobacco gene that we previously reported (1) as well as other higher plants (2–5). Some of the features include: the −35 box, 34–39; the −10 box, 57–62; the Shine–Dalgarno sequence, 115–119. The psaC gene starts from 130 and ends at 372. The deduced amino acid sequence indicates an 87.5% homology compared with the tobacco sequence. The nucleotide sequence homology is 73.2% of that of the tobacco gene. The GC content of this thermophilic prokaryote gene is 54.1% which is considerably higher than those of mesophilic plants (less than 42%, calculated from ref. 1–5).

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REFERENCES


![Nucleotide sequence of the psaC gene of the cyanobacterium Synechococcus vulcanus](image-url)