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Sequence of two apparent pseudogenes of the major potato tuber protein, patatin

Craig S.Pikaard, Greg A.Mignery, Din Pow Ma*, Vincent J.Stark and William D.Park

Department of Biochemistry and Biophysics and *Department of Biology, Texas A&M University, College Station, TX 77843-2128, USA

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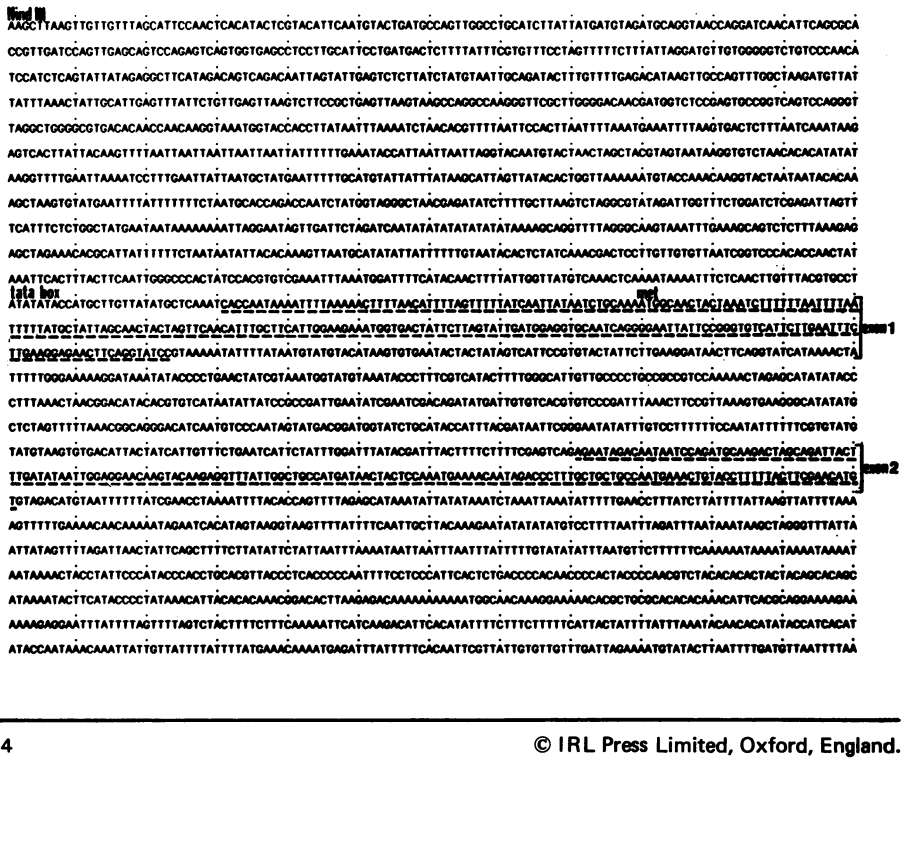
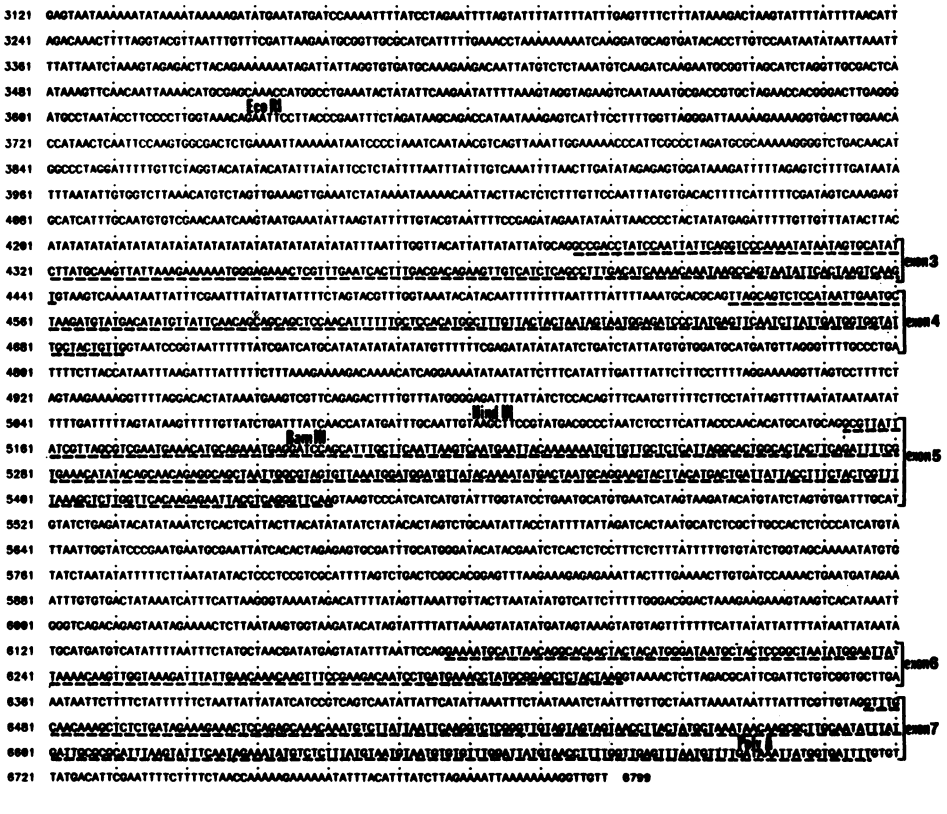
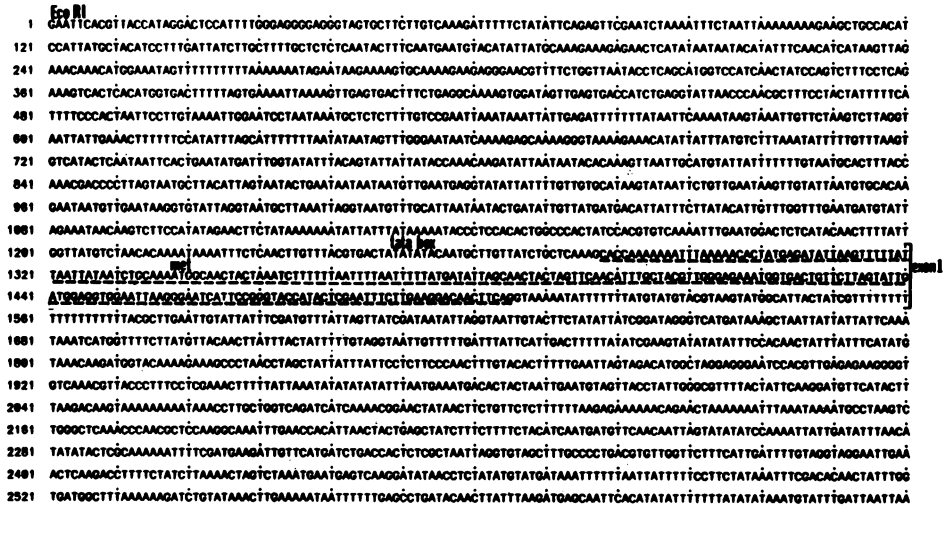
We have completely sequenced two patatin genomic clones isolated from a genomic library of the potato (Solanum tuberosum L.) cultivar Superior. Comparison of the sequences to the full-length patatin cDNA, pGM01 (1) permits the assignment of intron-exon boundaries. Each gene is interrupted by six introns that vary greatly in length between the two clones. Both clones, SB6B and SA10C, contain frame-shift mutations that preclude the encoding of full-length patatin: two adjacent adenosines present in the cDNA are deleted in SB6B at nucleotide 4542, and a thymidine is inserted at nucleotide 4039 in SA10C. The reading-frames of the two genes are otherwise conserved. These are the first reported gene sequences of any members of the patatin multigene family.

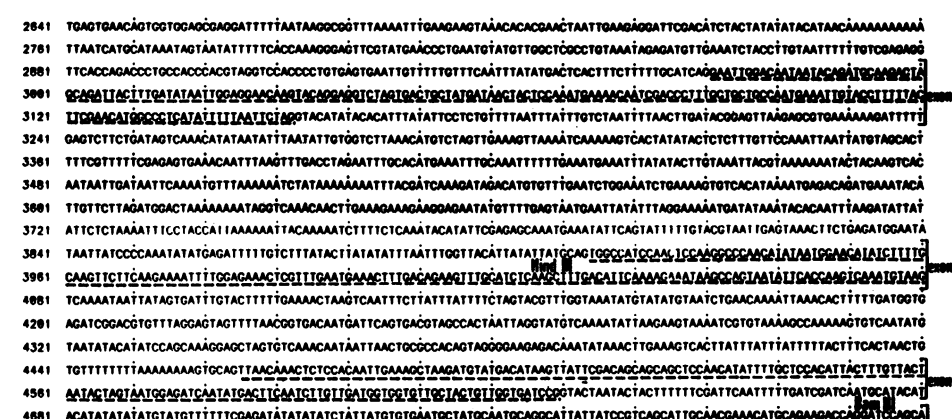
SEQUENCE OF PATATIN CLONE SB6B





SEQUENCE OF PATATIN CLONE SA1OC





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References

1) Mignery, G.A., Pikaard, C.S., Hannapel, D.J. and Park, W.D. (1984) Nucleic Acids Res. 12, 7987-8000.