

DNA sequence of the gene encoding the Zc1 protein from *Zea mays* W64 A

Manuel Reina*, Pedro Guillén, Inmaculada Ponte, Albert Boronat and Jaume Palau
 Department de Biologia Molecular i Agrobiologia, CID-CSIC, Jordi Girona Salgado 18-26, 08034
 Barcelona, Spain

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The Zein-2 component named Zc1 corresponds to a storage protein of an apparent M.W. of 16 kDa present in maize endosperm (1). A comparison of amino acid sequences between this protein and Zc2 (glutelin-2) shows that Zc1 corresponds to a truncated Zc2 protein (2). In our laboratory we have isolated and sequenced a genomic clone (pZ3) of 3864 nucleotides coding for Zc1 protein. This genomic fragment shows a length of 1241 bp for the 5' region, 551 bp for the coding region that appears underlined and 1062 bp for the 3' region. The putative TATA-box also appears underlined. The comparison with the sequence of the corresponding cDNA clone, shows the lack of introns in this gene. Furthermore, this is the first case for maize storage

protein genes that sequences for a genomic clone and a cDNA clone fully coincide. The 5' region has been used for homology studies by comparison with the 5' sequence of Zc2 gene (these results are summarized in the next record). The availability of a large flanking sequence let us perform studies on gene expression.

REFERENCES

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* Present address: Unitat de Biologia Cel·lular, Departament Bioquímica i Fisiologia, Universitat de Barcelona, Avda. Diagonal 645, 08028 Barcelona, Spain