Nucleotide and deduced amino acid sequences of chicken lactate dehydrogenase-A

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We isolated and sequenced a cDNA clone carrying the lactate dehydrogenase A chain (LDH-A) from a chicken embryo fibroblasts cDNA library by differential hybridization; the expression of the LDH-A was increased eight fold in CEF transformed by Rous sarcoma virus. The cDNA clone is 1575 bp long; it consists of a 59 bp 5' non-coding region, a 996 bp coding region, and a 520 bp 3' non-coding region. The deduced amino acid sequence is identical to the sequence determined by amino acid sequencing (1) except at two residues of Leu-63 and Ile-78 instead of Met-63 and Thr-78, respectively. To investigate the origins of these changes, we further analyzed the nucleotide sequences of the corresponding regions on the genomic clones and found that the genomic sequences of amino acid position 63 and 78 were ACG (Thr) and ACA (Thr), respectively. It thus seems likely that misincorporations occurred at both positions during the cloning process and that the still remaining difference at position 63 (Leu-63 and Thr-63) might be due to other reasons, such as the difference of strain used.

REFERENCES