

Molecular Characterization of a Polyubiquitin Gene from Duck, *Anas Platyrhncos* (Aves: Anatidae)

Abdulaziz Ali A. Al-Khedhairy

*Department of Zoology, College of Sciences, P. O. Box 2455,
King Saud University, Riyadh 11451, Saudi Arabia
E- mail: kedhairy@ksu.edu.sa, Tel.: 966 1 4675765
Fax: 966 1 4678514*

Abstract. Molecular amplification and sequencing of genomic DNA encoding duck (*Anas platyrhncos*) polyubiquitin was performed by polymerase chain reaction (PCR). One of the several DNA fragments obtained on amplification conformed to 345 bp, which on sequencing yielded a polyubiquitin fragment (PUBD1). The PUBD1 sequence was found to be 89 and 93% similar to the sequences of human UBC and chickens UB1 respectively. This fragment translated into 115 amino acids corresponding to three fused units of ubiquitin (one complete and two partial units), indicating polyubiquitin coding sequences. Furthermore, genomic DNA was digested with *EcoR* I, *BamH* I and *Hind* III and subsequently single-strand amplification was performed with ubiquitin specific primers. It was concluded that ducks genome contains at least four loci for polyubiquitin genes. This is the first report of a newly characterized polyubiquitin gene from ducks.

Key words: *Anas platyrhncos*, Duck, Polyubiquitin.