

DNA REPAIR GENES IN LITOPENAEUS VANNAMEI: IN SILICO ANALYSIS

D.M. Duarte¹; J.C.M. Tavares¹; R.C.B. da Silva¹; L.F. Agnez-Lima¹; S.R. B. Medeiros¹;

¹Laboratório de Biologia Molecular e Genômica, Departamento de Biologia celular e Genética – UFRN, Natal-RN. E-mail: denise_duarteufrn@yahoo.com.br

The mechanisms of DNA repair are basic for maintenance of the integrity of the genome in all being living creatures. Thus, the aim of this work is to generate information about the mechanisms of DNA repair present in *L. vannamei*. Hence, the sequences of main involved proteins in the different pathways of DNA repair present in Human beings, Yeast, *Drosophila* and *Danio rerio*, had been gotten in the GenBank (<http://www.ncbi.nlm.nih.gov>). These peptidics sequences had been used to identify homologous nucleotidics sequences in the data base ShEST (<http://www.shrimp.ufscar.br>) using the program tblastn. For analysis of the identified genes, possible windows of reading (ORFs) and its probable domain were searched, using programs available in the GenBank, ORF FINDER and the CDD, respectively. Nucleotidics sequences of the ShEST had been found for the following repair pathway resembling Repair for Excision of Nucleotidic (REN), Recombinacional Repair (RR) and Mismatch Repair, in different libraries of DNA (egg, nauplio and mysis), with "e-values" oscillating between 1×10^{-63} 1×10^{-06} . Some proteins of these pathways of repair had presented domains conserved through the alignment in crustalw in this ORFs identified. These results suggest that the identified homologous sequences in the ShEST are possibly involved in some of the pathways of repair of the DNA.

Key words: Repair; Shrimp; ESTs

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