

IDENTIFICATION OF SEQUENCES THAT CODIFY FOR HEMOLYSINS IN *LEISHMANIA MAJOR*

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Previous works from our group had shown that *Leishmania amazonensis* has a pore forming protein (PFP) that lyses erythrocytes and damages macrophages, which we named leishporin. *L. major* also has a hemolytic activity, although we have not yet characterized as a PFP in this species. *L. amazonensis* leishporin has already been studied in a number of aspects. However, its molecular identity is still unknown. Since the genome of the *L. major* is now completely sequenced, we started a search for hemolysins in this species, in attempt to identify putative PFPs. We found four sequences that were annotated as possible hemolysins type III. These sequences showed a significant homology to other deposited PFPs sequences and, moreover, presented the same Pfam (PF03006) that characterizes this gene family. The information deposited in the database corresponds to the complete codifying sequences of these genes. Therefore, using specific primers, we amplified by PCR from the genomic DNA of *L. major* and cloned one of these genes in TOPO2.1. Using a hemolytic assay, we found that all six clones analysed presented hemolytic activity. One of this clones were transferred to a regulated expression vector (pGEX4T1), and we are currently trying to purify the expressed protein for further studies.

