

MAPPING INTERACTIONS AMONG HOMOLOGUES OF TRANSLATION INITIATION FACTORS IN *LEISHMANIA MAJOR*

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The trypanosomatids are characterized by unique molecular mechanisms including the control of their gene expression at the post-transcriptional level. In higher eukaryotes the translation initiation is regulated by the activity of the eIF translation initiation. Among these factors the eIF4F complex (eIF4E, eIF4G and eIF4A), which binds to the 5' end Cap of the mRNAs, plays a crucial role in the translation initiation. The eIF4F activity is enhanced by the Poly (A) Binding Protein (PABP), which acts through a direct interaction with eIF4G. In order to identify if the eIF4F translation initiation system would exist in trypanosomatids, we decided to screen eIF4F putative sequences in the parasite databases. Several homologues of the eIF4F subunits and PABP have been identified in *Leishmania major*. These genes have been cloned and expressed as recombinant and radioactive labelled proteins. Here we have investigated possible interactions between these homologues by pull-down assays. So far, we have confirmed the specific interactions between some of these factors, reconstituting partially the interactions among the eIF4F complex subunits and PABP. These interactions confirm the existence of at least one eIF4F complex in trypanosomatids. Further technologies, such as immunoprecipitation and Tap-tagging assays, are going to be performed to validate our findings.

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