

Transcription of the *Trypanosoma brucei* spliced leader RNA gene is dependent only on the presence of upstream regulatory elements.

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Abstract:

The spliced leader (SL) RNA plays a key role in mRNA maturation in trypanosomatid protozoa by providing the SL sequence, which is joined to the 5' end of every mRNA. As a first step towards a better understanding of the biogenesis and function of the SL RNA, we expressed a tagged SL RNA gene in a cell-free system of procyclic *Trypanosoma brucei* cells. Transcription initiates at + 1 can be detected as early as 1 min after addition of extract. Transcription of the SL RNA gene in vitro, as well as in permeable cells, is mediated by an alpha-amanitin/tagetitoxin resistant complex, suggesting a promoter that is intermediate between a classical RNA polymerase II and RNA polymerase III promoter. An analysis of the promoter architecture of the SL RNA gene revealed that regulatory elements are located upstream of the coding region and that the SL sequence, in contrast to the nematode SL sequence, is not required for *T. brucei* SL RNA gene transcription