

Supplementary Table 1. Nucleolar components and general transcription initiation factors identified in *Giardia*

Component	Category	Function	Notes	References
Fibrillarin	Nucleolar protein	2'-O-methylation of pre-rRNA	Functionally conserved	Narcisi et al. 1998 [16]; Jiménez-García et al. 2008 [20]
CBF5	Nucleolar enzyme	rRNA pseudouridylation	Functionally conserved	Jiménez-García et al. 2008 [20]; Gaona-López et al. 2023 [4]
KRR1	SSU biogenesis	Small ribosomal subunit biogenesis	Functionally conserved	Xin 2005 et al. [18]; Gaona-López et al. 2023 [4]
snoRNAs (multiple)	Noncoding RNAs	Guide rRNA modifications	Several are <i>Giardia</i> -specific	Saraiya & Wang 2008 [19]
<i>GlsR17</i> snoRNA A43	Noncoding RNA	rRNA modification	No orthologs	Saraiya & Wang 2008 [19]
Rrn3	RNAPI initiator	Promoter recruitment with Rrn3	One of 4 initiation factors	Best et al. 2004 [23]
Rrn3	RNAPI initiator	Recruitment of RNAPI to rDNA promoter	One of 4 initiation factors	Best et al. 2004 [23]
BRF (TFIIB-related factor)	RNAPI initiator	TFIIB-like component	One of 4 initiation factors	Best et al. 2004 [23]
C34	RNAPI initiator	RNAPIII PIC formation	One of 4 initiation factors	Best et al. 2004 [23]
TFIIH core (p90, p44, p34, p80)	RNAPI initiator and repair	Initiating transcription, phosphorylating RNAPII, DNA repair	Partial complex; CAK absent	Best et al. 2004 [23]
TBP (TATA-binding protein)	Universal transcription factor	Initiation for RNAPI/II/III	Highly divergent	Best et al. 2004 [23]; Parra-Marín et al. 2020 [27]; Gaona-López et al. 2024 [8]