Supplementary Table 7: Archaea-related essential genes present in eukaryotes but not in bacteria

Systematic ID	Gene name	Essentiality	Gene function
SPAC15A10.04C	zpr1	E	EF-1 alpha binding zinc finger protein Zpr1 (predicted)
SPAC16C9.03		E	export adaptor (predicted)
SPAC16E8.16		E	transcription factor TFIIB
SPAC17G8.03c	dpb3	E	DNA polymerase epsilon subunit Dpb3
SPAC1834.01	sup45	E	translation release factor eRF1
SPAC18G6.07c	mra1	E	ribosome biogenesis protein Mra1
SPAC19A8.07c		E	U3 snoRNP-associated protein Imp4 (predicted)
SPAC1B2.05	mcm5	E	MCM complex subunit Mcm5
SPAC1B3.12c	rpb1	E	DNA-directed RNA polymerase I, II, and III subunit Rpb10
SPAC1B9.03c		E	RNA-binding protein involved in ribosomal large subunit assembly and maintenance (predicted)
SPAC22A12.05	rpc11	E	DNA-directed RNA polymerase III complex subunit Rpc11
SPAC22E12.13c	rpl243	E	60S ribosomal protein L24-3 (L30)
SPAC23A1.08c	rpl341	E	60S ribosomal protein L34
SPAC23C4.15	rpb5	E	DNA-directed RNA polymerase I, II and III subunit Rpb5
SPAC23D3.02	rfc2	E	DNA replication factor C complex subunit Rfc2
SPAC27E2.05	cdc1	E	DNA polymerase delta small subunit Cdc1
SPAC29A4.04c		E	pseudouridylate synthase (predicted)
SPAC29E6.08	tbp1	E	TATA-binding protein (TBP)
SPAC2F7.05c		E	translation initiation factor eIF5 (predicted)
SPAC32A11.04c	tif212	E	translation initiation factor eIF2 beta subunit (predicted)
SPAC3A11.12C	rpt5	E	19S proteasome regulatory subunit Rpt5 (predicted)
SPAC3A12.04c		E	RNase P and RNase MRP subunit p30 (predicted)
SPAC3G9.09c	tif211	E	translation initiation factor eIF2 alpha subunit
SPAC3H5.06c	pol1	E	DNA polymerase alpha catalytic subunit
SPAC458.07	tfa1	E	transcription factor TFIIE alpha subunit Tfa1
SPAC4F8.04		E	Brix domain protein Rpf1 (predicted)
SPAC4G8.02c	sss1	E	translocon gamma subunit Sss1 (predicted)
SPAC664.05	rpl13	E	60S ribosomal protein L13
SPAC6F6.07c	rps13	E	40S ribosomal protein S13 (predicted)
SPAC6G10.04c		E	20S proteasome component alpha 6 subunit Pre5
SPAC890.08	rpl31	E	60S ribosomal protein L31
SPAC926.08c		E	Brix domain protein Rpf2 (predicted)
SPACUNK4.06c	rpb7	E	DNA-directed RNA polymerase complex II subunit Rpb7
SPAP27G11.13c	nop1	E	small nucleolar ribonucleoprotein Nop10
SPBC1105.16c	rpr2	E	RNase P subunit Rpr2 (predicted)

SPBC13E7.10c	brf1	E	transcription factor TFIIIB complex subunit Brf1
SPBC14C8.07c	cdc18	E	MCM loader
SPBC16C6.07c	rpt1	E	19S proteasome regulatory subunit Rpt1 (predicted)
SPBC16D10.09	pcn1	E	PCNA
SPBC17D11.06	spp2	E	DNA primase large subunit Spp2
SPBC19C2.03	rpc1	E	DNA-directed RNA polymerase I, II and III subunit Rpc10
SPBC211.04c	mcm6	E	MCM complex subunit Mcm6
SPBC25D12.03c	mcm7	E	MCM complex subunit Mcm7
SPBC29A3.04	rpl8	E	60S ribosomal protein L7a (L8)
SPBC30D10.02		E	transcription corepressor (predicted)
SPBC337.14	rpb4	E	DNA-directed RNA polymerase II complex subunit Rpb4
SPBC3B9.07c	rpa43	E	DNA-directed RNA polymerase I complex subunit Rpa43
SPBC4.04c	mcm2	E	MCM complex subunit Mcm2
SPBC651.01c	nog1	E	GTP binding protein Nog1 (predicted)
SPBC660.13c	ssb1	E	DNA replication factor A subunit Ssb1
SPBC800.06	brx1	E	ribosome biogenesis protein Brx1
SPCC1450.04	tef5	E	translation elongation factor EF-1 beta subunit (eEF1B)
SPCC1682.02c	mcm3	E	MCM complex subunit Mcm3
SPCC16A11.17	cdc21	E	MCM complex subunit Cdc21
SPCC553.09c	spb7	E	DNA polymerase alpha B-subunit
SPCC576.10c	rpt3	E	19S proteasome regulatory subunit Rpt3 (predicted)
SPCC830.09c		E	RNase P and RNase MRP subunit (predicted)
SPCP1E11.08		E	ribosome biogenesis protein Nsa2 (predicted)
SPCP31B10.08c	rpl35a	E	60S ribosomal protein L35a

E=essential