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Table S1 RNA Polymerase and Transcription Factor Subunit Distribution Among Fungi, Animals, Plants and *Giardia*

RNA Polymerase Subunits											
Bacteria	Archaea	RNAP I	RNAP II	RNAP III	<i>S. cerevisiae</i>	<i>H. sapiens</i>	<i>A. thaliana</i>	<i>G. lamblia</i>			
β'	A	A190	B220 (RPB1)	C160	NP_014986.1	NP_056240.1	NP_191325.1	EAA40851.1			
		NP_010141.1			NP_000928.1	CAA37130.1	AAM77743				
		NP_014759.1			NP_008986.2	NP_200812.1	S22812				
β	B	A135	B150 (RPB2)	C128	NP_015335.1	NP_061887.2	NP_564341.1	EAA39886.1			
		NP_014794.1			Q9NW08	NP_193902.1	AAM77733				
		NP_014850.1			NP_060552.3	NP_199327.3	EAA42548.1				
				C82	NP_015516.1	NP_006459.3	NP_566914.1				
				C53	NP_010131.1	AAH02603.1	NP_194248.1				
		A49		NP_014151.1	NP_071935.1	NP_188010.1					
		α		D	AC40	AC40	NP_015435.1		NP_004866.1	NP_176282.1	EAA39106.1
				B44 (RPB3)	NP_012243.1	NP_002685.2	NP_179145.1		AAM77734		
				B32 (RPB4)	NP_012395.1	NP_004796.1	NP_196554.1				
		A34			NP_012387.1	S. cerevisiae specific					
		H		ABC27	ABC27 (RPB5)	ABC27	NP_009712.1	NP_002686.2	NP_188871.1	AAM77735, AAM77736	
					C34	NP_014400.1	NP_006457.2	NP_197760.1	EAA42665.1		
					C31	NP_014248.1	NP_006458.1				
		ω		K	ABC23	ABC23 (RPB6)	ABC23	NP_015513.1	NP_068809.1	NP_200007.1	AAM77737
	E'	A43	B16 (RPB7)	C25	NP_014985.1	XP_379792.1	NP_565115.1	EAA42523.1			
		NP_010692.1			NP_002687.1	NP_200726.1	AAM77738				
		NP_012778.1			NP_612211.1	NP_172164.1	EAA41681.1				
		NP_012523.1			NP_055293.1	NP_201100.1					
			ABC14.5	ABC14.5 (RPB8)	ABC14.5	NP_014867.1	NP_006223.2	NP_175827.1	AAM77739		
			A14		NP_010440.1	S. cerevisiae specific					
		M / TFS	A12.2	B12.6 (RPB9)	C11	NP_012597.1	NP_740753.1	NP_566786.1	EAA40003.1		
			NP_011445.1			NP_006224.1	NP_188323.1				
		N				NP_010330.1	NP_057394.1	NP_192535.1	EAA37424.1		
			ABC10β	ABC10β (RPB10)	ABC10β	NP_014853.1	NP_066951.1	NP_849640.1	AAM77740		
α		L	AC19	AC19	NP_014286.1	NP_057056.1	NP_180514.1	EAA42291.1			
			B12.5 (RPB11)		NP_014638.1	NP_006225.1	NP_190777.1	AAM77741			
		P	ABC10α	ABC10α (RPB12)	ABC10α	NP_012013.1	NP_005025.1	NP_198917.1	AAM77742		

Transcription Factor Subunits

Bacteria	Archaea	RNAP I	RNAP II	RNAP III	<i>S. cerevisiae</i>	<i>H. sapiens</i>	<i>A. thaliana</i>	<i>G. lamblia</i>
	TBP	TBP	TBP	TBP	NP_014248.1	NP_003185.1	NP_187953.1	EAA38645.1
			TFIIA α/β		NP_014837.1	NP_056943.1	NP_850937.1	
			TFIIA γ		NP_012865.1	NP_004483.1	NP_194175.1	
	TFB		TFIIB		NP_015411.1	NP_001505.1	NP_181694.1	
			TFIIE α		NP_012897.1	NP_005504.1	NP_563681.1	
			TFIIE β		NP_012988.1	NP_002086.1	NP_193766.1	
			TFIIF α		NP_011702.1	NP_002087.1	NP_192998.2	
			TFIIF β		NP_011519.1	NP_004119.1	NP_177683.1	
			TFIIF small subunit		NP_015196.1	Fungi specific		
			TFIIH P90 (ERCC3, XPB)		NP_012123.1	NP_000113.1	NP_568592.1	EAA41218.1
			TFIIH P80 (ERCC2, XPD)		NP_011098.1	NP_000391.1	NP_849584.1	EAA38649.1
			TFIIH P62 (Tfb1p)		NP_010597.1	NP_005307.1	NP_191701.1	
			TFIIH P55 (Tfb2p)		NP_015203.1	XP_378195.1	NP_974564.1	
			TFIIH P44 (SSL1, BTF2)		NP_013105.1	NP_001506.1	NP_683275.2	EAA41267.1
			TFIIH P34 (Tfb4p)		NP_015381.1	NP_001507.2	NP_564050.1	EAA41416.1
			TFIIH MAT1 (Tfb3p)		NP_010748.1	NP_002422.1	NP_567855.1	
			TFIIH Cyclin H (ccl1)		NP_015350.1	NP_001230.1	NP_198114.2	
			TFIIH MO15 (Kin28)		NP_010175.1	CAA73587	NP_173244.1	*
	TFS		TFIIS		NP_011472.1	CAA51940.1	NP_181390.1	EAA39710.1
		RRN3			NP_012797.1	NP_060897.2	NP_850236.1	EAA40465.1
		RRN5			NP_013242.1	S. cerevisiae specific		
		RRN6			NP_009539.1	S. cerevisiae specific		
		RRN7			NP_012509.1	S. cerevisiae specific		
		RRN9			NP_013997.1	S. cerevisiae specific		
		RRN10			NP_009528.1	S. cerevisiae specific		
		TAF-IA			Mammalian specific	NP_005672.2		
		TAF-IB			Mammalian specific	AAA62863.1		
		TAF-IC			Mammalian specific	NP_005670.1		
		UBF			Mammalian specific	XP_008365.1		
				TFIIIA	NP_015512.1	NP_002088.1	NP_974128.1	
	TFB			TFIIIB BR	NP_011762.1	NP_001510.2	NP_182035.1	EAA40027.1
				TFIIIB B"	NP_014359.1	AAG30220.1	NP_195627.1	
				TFIIIC 102 (τ 131)	NP_011561.1	NP_036218.1	NP_173210.3	
				TFIIIC 63 (τ 95)	NP_009681.1	NP_036219.1	NP_190510.2	
				TFIIIC 220	Mammalian specific	NP_001511.1		
				TFIIIC 110	Mammalian specific	NP_001512.1		
				TFIIIC 90	Mammalian specific	NP_036336.1		
				TFIIIC τ 138	NP_009400.1	Fungi specific		
				TFIIIC τ 91	NP_010649.1	Fungi specific		
				TFIIIC τ 60	NP_015318.1	Fungi specific		
				TFIIIC τ 55	NP_014753.1	Fungi specific		

Key:

	RNAP II
RNAP I	
	RNAP III
RNAP I & III	
	RNAP I, II & III
Absent	

* A specific homologue to the MO15 family was not identified (see text)