

Supplemental Table: Sequences used for the phylogenetic analysis of CSN and lid subunits.

Protein	Species	Designation	Accession No.
CSN1+RPN7			
G protein pathway suppressor 1	<i>H.sapiens</i>	hsCSN1	U20285
COP9 signalosome subunit 1	<i>D.melanogaster</i>	dmDch1	AF129080
CSN complex subunit 1	<i>A.thaliana</i>	atCSN1	AF395057
signalosome subunit CSN1	<i>S.pombe</i>	spCsn1	AF314169
proteasome regulatory particle subunit p44 S10 Rpn7 gene product	<i>H.sapiens</i>	hs_RPN7	AF215935
26S proteasome regulatory particle chain RPN7 homolog	<i>D.melanogaster</i>	dm_RPN7	AE003739
26S proteasome regulatory particle chain RPN7 homolog	<i>A.thaliana</i>	at_RPN7	T06666
probable proteasome regulatory subunit yeast rpn7p homolog	<i>S.pombe</i>	sp_RPN7	Q10335
26S proteasome regulatory particle chain RPN7	<i>S.cerevisiae</i>	sc_RPN7	S59773
CSN2+RPN6			
signalosome subunit 2	<i>H.sapiens</i>	hsCSN2	AF084260
COP9 signalosome subunit 2	<i>D.melanogaster</i>	dmDch2	AF129079
CSN complex subunit 2	<i>A.thaliana</i>	atCSN2	AF395058
signalosome subunit CSN2	<i>S.pombe</i>	spCsn2	AF314168
26S proteasome subunit 9	<i>H.sapiens</i>	hs_RPN6	Af001212
Rpn6 gene product	<i>D.melanogaster</i>	dm_RPN6	AE003813
putative 26S proteasome subunits	<i>A.thaliana</i>	at_RPN6	AF370203
26S proteasome regulatory subunit	<i>S.pombe</i>	sp_RPN6	AL138854
26S proteasome regulatory complex chain RPN6	<i>S.cerevisiae</i>	sc_RPN6	S67639
CSN3+RPN3			
COP9 subunit 3	<i>H.sapiens</i>	hsCSN3	BC001891
COP9 signalosome subunit 3	<i>D.melanogaster</i>	dmDch3	AF129081
COP9 signalosome subunit 3	<i>A.thaliana</i>	atCSN3	AF361759
proteasome subunit p58	<i>H.sapiens</i>	hs_RPN3	D67025
probable 26S proteasome regulatory subunit S3	<i>D.melanogaster</i>	dm_RPN3	P25161
probable 26S proteasome regulatory subunit S3	<i>A.thaliana</i>	at_RPN3	Q9LNU4
probable 26S proteasome regulatory subunit S3	<i>S.pombe</i>	sp_RPN3	O42897
26S proteasome regulatory subunit RPN3	<i>S.cerevisiae</i>	sc_RPN3	P40016
hypothetical protein SPAC82102.c	<i>S.pombe</i>	spCSN3-like	T41713
CSN4+RPN5			
COP9 complex subunit 4	<i>H.sapiens</i>	hsCSN4	AF100757
COP9 signalosome subunit 4	<i>D.melanogaster</i>	dmDch4	AF129082
COP8	<i>A.thaliana</i>	atCSN4	Af176089
putative COP9 complex subunit; contains PCI domain	<i>S.pombe</i>	spCsn4	Z99295
26S proteasome subunit p55	<i>H.sapiens</i>	hs_RPN5	AB003103
Rpn5 gene product	<i>D.melanogaster</i>	dm_RPN5	AE003601
26S proteasome p55 protein-like	<i>A.thaliana</i>	at_RPN5	AB016893
26S proteasome complex; yeast Rpn5 homolog	<i>S.pombe</i>	sp_RPN5	AL590902
26S proteasome regulatory complex chain RPN5	<i>S.cerevisiae</i>	sc_RPN5	S67695
CSN5+RPN11			
COP9 subunit 5	<i>H.sapiens</i>	hsCSN5	XP_011713
COP9 signalosome subunit 5	<i>D.melanogaster</i>	dmDch5	AF129083
CSN complex subunit 5A	<i>A.thaliana</i>	atCSN51	AF395061
COP9/signalosome complex subunit5	<i>S.pombe</i>	spCsn5	AL035064
26S proteasome-associated pad1 homolog	<i>H.sapiens</i>	hs_RPN11	U86782
Rpn11 gene product	<i>D.melanogaster</i>	dm_RPN11	AE003608

26S proteasome ,non-ATPase regulatory subunit	<i>A.thaliana</i>	at_RPN11	AB025633
pad1 protein; 26S proteasome subunit	<i>S.pombe</i>	sp_RPN11	Z98979
26S proteasome regulatory particle chain RPN11	<i>S.cerevisiae</i>	sc_RPN11	S56259
CSN6+RPN8			
COP9 subunit 6(MOV34 homolog,34KD)	<i>H.sapiens</i>	hsCSN6	U70735
COP9 complex homolog subunit 6	<i>D.melanogaster</i>	dmDch6	NP_524451
CSN complex subunit 6A	<i>A.thaliana</i>	atCSN61	AF395063
proteasome subunit p40/Mov34 protein	<i>H.sapiens</i>	hs_RPN8	D50063
26S proteasome regulatory subunit S12	<i>D.melanogaster</i>	dm_RPN8	P26270
26S proteasome regulatory subunit S12	<i>A.thaliana</i>	at_RPN8	AC073395
26S proteasome regulatory subunit 12	<i>S.pombe</i>	sp_RPN8	T41067
26S proteasome regulatory particle chain RPN8	<i>S.cerevisiae</i>	sc_RPN8	S67158
CSN7+RPN9			
COP9 complex subunit 7	<i>H.sapiens</i>	hsCSN7	AF210052
CG2038 gene product	<i>D.melanogaster</i>	dmCSN7	AAF59097
CSN complex subunit 7	<i>A.thaliana</i>	atCSN7 ii	AF395066
COP9/signalosome complex subunit 7	<i>S.pombe</i>	spCSN7	Q9UUJ7
26S proteasome subunit p40.5	<i>H.sapiens</i>	hs_RPN9	AF107837
26S proteasome regulatory complex subunit p39A	<i>D.melanogaster</i>	dm_RPN9	AF145311
26S proteasome subunit-like protein	<i>A.thaliana</i>	at_RPN9	AB012245
19S proteasome regulatory subunit	<i>S.pombe</i>	sp_RPN9	A1135751
26S proteasome regulatory particle chain RPN9	<i>S.cerevisiae</i>	sc_RPN9	S69708
CSN8+RPN12			
COP9 signalosome subunit 1	<i>H.sapiens</i>	hsCSN8	U51205
CSN complex subunit 8	<i>A.thaliana</i>	atCSN8	AF395067
26S proteasome subunit	<i>H.sapiens</i>	hs_RPN12	D38047
26S proteasome regulatory complex subunit p30	<i>D.melanogaster</i>	dm_RPN12	AF145314
proteasome regulatory subunit, putative	<i>A.thaliana</i>	at_RPN12	NP_176633
26S proteasome regulatory subunit	<i>S.pombe</i>	sp_RPN12	X92682
26S proteasome regulatory complex chain RPN12	<i>S.cerevisiae</i>	sc_RPN12	S27434
CG13383 gene product	<i>D.melanogaster</i>	dmCSN8-like	Q9VLN4