

BtubA			BtubB		
Group	No. of motifs	P value	Group	No. of motifs	P value
<i>P. dejongeii</i>			<i>P. dejongeii</i>		
Tubulin	9 of 9	$1.4 \times e^{-62}$	Tubulin	9 of 9	$1.9 \times e^{-72}$
alpha tubulin	7 of 13	$5.9 \times e^{-17}$	beta tubulin	8 of 13	$4.2 \times e^{-26}$
beta tubulin	6 of 13	$1.4 \times e^{-14}$	epsilon tubulin	6 of 10	$3.3 \times e^{-19}$
epsilon tubulin	4 of 10	$1.2 \times e^{-15}$	alpha tubulin	5 of 13	$2.5 \times e^{-14}$
delta tubulin	3 of 12	$1.9 \times e^{-12}$	gamma tubulin	4 of 8	$1.4 \times e^{-13}$
gamma tubulin	5 of 8	$3.3 \times e^{-11}$	FtsZ	3 of 6	$1.7 \times e^{-10}$
FtsZ	2 of 6	$8.3 \times e^{-6}$	delta tubulin	2 of 12	$5.6 \times e^{-9}$
<i>P. vanneervanii</i>			<i>P. vanneervanii</i>		
Tubulin	9 of 9	$3.4 \times e^{-61}$	Tubulin	9 of 9	$1.2 \times e^{-72}$
beta tubulin	8 of 13	$4.2 \times e^{-16}$	beta tubulin	8 of 13	$3.9 \times e^{-25}$
epsilon tubulin	4 of 10	$2.0 \times e^{-14}$	epsilon tubulin	6 of 10	$3.4 \times e^{-20}$
alpha tubulin	6 of 13	$6.4 \times e^{-14}$	gamma tubulin	5 of 8	$1.8 \times e^{-14}$
delta tubulin	3 of 12	$1.2 \times e^{-13}$	alpha tubulin	4 of 13	$2.2 \times e^{-11}$
gamma tubulin	5 of 8	$1.2 \times e^{-11}$	delta tubulin	2 of 12	$5.6 \times e^{-10}$
FtsZ	2 of 6	$1.4 \times e^{-6}$	FtsZ	2 of 6	$1.5 \times e^{-8}$
<i>P. debontii</i> operon 1			<i>P. debontii</i> operon 1		
Tubulin	9 of 9	$3.5 \times e^{-61}$	Tubulin	9 of 9	$1.6 \times e^{-72}$
epsilon tubulin	4 of 10	$2.5 \times e^{-15}$	beta tubulin	8 of 13	$4.2 \times e^{-26}$
beta tubulin	6 of 13	$6.3 \times e^{-15}$	epsilon tubulin	6 of 10	$1.6 \times e^{-20}$
alpha tubulin	7 of 13	$6.6 \times e^{-15}$	gamma tubulin	5 of 8	$1.8 \times e^{-13}$
delta tubulin	4 of 12	$1.2 \times e^{-13}$	alpha tubulin	5 of 13	$9.3 \times e^{-13}$
gamma tubulin	5 of 8	$6.5 \times e^{-11}$	delta tubulin	2 of 12	$9.6 \times e^{-10}$
FtsZ	2 of 6	$8.2 \times e^{-6}$	FtsZ	2 of 6	$4.1 \times e^{-9}$
<i>P. debontii</i> operon 2			<i>P. debontii</i> operon 2		
Tubulin	9 of 9	$4.5 \times e^{-58}$	Tubulin	9 of 9	$2.2 \times e^{-73}$
beta tubulin	7 of 13	$1.5 \times e^{-15}$	beta tubulin	7 of 13	$6.3 \times e^{-24}$
epsilon tubulin	4 of 10	$1.8 \times e^{-15}$	epsilon tubulin	6 of 10	$2.6 \times e^{-20}$
alpha tubulin	5 of 13	$1.4 \times e^{-14}$	gamma tubulin	5 of 8	$5.1 \times e^{-14}$
gamma tubulin	4 of 8	$1.2 \times e^{-7}$	alpha tubulin	5 of 13	$2.3 \times e^{-12}$
FtsZ	2 of 6	$8.3 \times e^{-6}$	FtsZ	3 of 6	$1.4 \times e^{-10}$
delta tubulin	2 of 12	$1.5 \times e^{-5}$	delta tubulin	2 of 12	$4.1 \times e^{-10}$

Table S1. BtubA and BtubB protein motif search.