

	1	10	20	30	40	50	60
ELR19129	MQIFVKTLTGKTTITLEVESSDTIENVKQKIQDKEGIPPDQQRLLIFAGKQLEDGRTLADYN						
X87156	MQIFVKTLTGKTTITLEVESSDTIENVKQKIQDKEGIPPDQQRLLIFAGKQLEDGRTLADYN						
	70	80	90	100	110	120	
ELR19129	IQKESTLHLVLRRLRGGMQIFVKTLTGKTTITLEVESSDTIENVKQKIQDKEGIPPDQQRLLI						
X87156	IQKESTLHLVLRRLRGGMQIFVKTLTGKTTITLEVESSDTIENVKQKIQDKEGIPPDQQRLLI						
	130	140	150	160	170	180	
ELR19129	FAGKQLEDGRTLADYNIQKESTLHLVLRRLRGGMQIFVKTLTGKTTITLEVESSDTIENVKQ						
X87156	FAGKQLEDGRTLADYNIQKESTLHLVLRRLRGGMQIFVKTLTGKTTITLEVES.....						
	190	200	210	220			
ELR19129	KIQDKEGIPPDQQRLLIFAGKQLEDGRTLADYNIQKESTLHLVLRRLRGGN						
X87156						

Supplementary Fig. S1. Alignment of the amino acid sequences of the pUb gene (X87156) from *Acanthamoeba* isolate 4B3 and the gene annotated as pUb in *A. castellanii* Neff (ELR19129). Black regions indicate identical amino acid sequences common to both genes, while gray regions represent amino acid sequences observed only in ELR19129.