

Title: Methods for the characterization of *Daphnia pulex* and *Euphilomedes carcharodonta* Pax6 homologs.

Table S1 - Primers used for characterization of arthropod *Pax-6* genes

#	Name	Sequence
1	Pax6 Forward	GNGGNGTNTTYGTNAAAYGG
2	Pax6Nested Forward	TNGGNMGNTAYTAYGARACNGG
3	Reverse	GCRAANACRTCNGGRTARTG
4	Pax6-DF1	CCTTGTGATATTCTCGAATWCTNCAAGT
5	Pax6-DR2	CCTTGCTAAGATTTTCGACACGCATCCGT
6	EuphPaxF2	GGGAATGYCCAAGCATATTCGCATGGG
8	Int6R	CGCTCTTCTATTACTAAACCAA
9	Dphn_eyF	CAGCGTTTCATCCATCAACCGTGTGTTA
10	Dphn_eyenestF	CTCGACTGCGGCTCAAGCGCAAACCT
11	5RtoyR	GCTAAGATTTTCGACACGCATCCGTTTG
12	5Rtoy-nestR	TCGACACGCATCCGTTTGAGACTTGAAG
13	Dphn_toyR	GGCCAATCTTTTCGGCGAGTCGTTCA
14	Dphn_toynestR	GCAGCACGCGATTGATCGAAGAAA
15	Dphn_eyR	GAGGTGCGGTTGCGCTGGAGTTT
16	pul ey98R	GGGCTCGAGACGGAATAGTGGCGTGCTGGTGC
17	Pax6 C forward	AARCGGGARTGYCCCTCGATATTYGCRTGG
18	Pax6 Z reverse	CCATTTWGCTCGWCGRTTYGARAACCAMACCTG

Table S2– Primers and cycling parameters used to characterize arthropod *Pax-6* genes

Gene	GenBank		Primers	
	GI	Region	(Table 1)	Cycling
<i>Euphilomedes toy</i>	78370176	Degenerate	4,5	[94/30 + 45/30 + 72/1 min] x 45
		5' RACE	11,12	Touchdown60, Nest ¹
		3' RACE	6	[94/30 + 55/30 + 72/60] x 40 + 72/10
<i>Daphnia toy</i>	78370177	Degenerate	17,18 ²	[94/45 + 50/45 + 72/2] x 40 + 72/10
		5' RACE	13,14	Touchdown60, Nest ¹
		3' RACE	N/A	
<i>Daphnia ey</i>	78370179	Degenerate	17,18 ²	[94/45 + 50/45 + 72/2] x 40 + 72/10
		5' RACE	15,16	Touchdown60, Nest ¹
		3' RACE	9,10	Touchdown60, Nest ¹

¹ Parameters recommended by Gene Racer kit, Invitrogen

² Gel purified