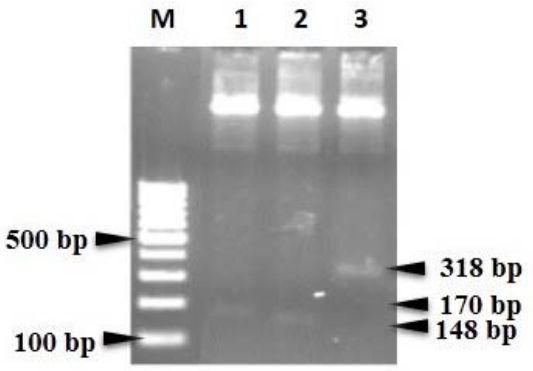

Fig. S1. Clone Confirmation of pcD-IAG-Ih. Lane M: Generuler® 100 bp ladder (Thermoscientific, USA); Lane 1: *Nhe*I-*Hind*III digest releases sense fragment of 170bp; L 2: *Xho*I- *BamH*I digest releases antisense fragment of 148bp; L 3: *Nhe*I-*Xho*I digest releases the combined long hairpin fragment.

Fig. S2. An OC-BC Morphotype transformation in *M. rosenbergii.* The OC to BC transformation occurs in a single molt. The image shows a freshly molted male that has undergone transformation along with its shed exoskeleton. Solid arrow shows newly developed blue claw while the dotted arrow shows the orange claw that has been shed

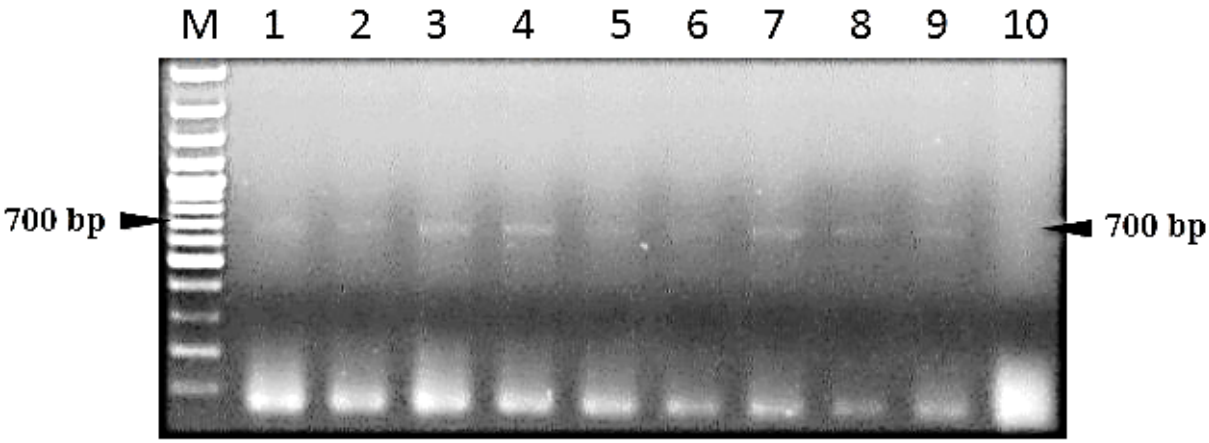

Fig. S3. Distribution and persistence of plasmid constructs in OC males. Lane M: Generuler ® 100 plus ladder; L 1 to 4: 700 bp band amplified from pleopods of pcD-IAG-lh injected animals on days 4, 12, 18, & 25 post-injection; L 5 & 6: 700 bp band amplified from muscle and gill tissues of pcD-IAG-lh injected animals of day 4; L 7 to 9: 700 bp band amplified from pcD-IAG orf injected animal on 25th day in E3; L 10: PBS injected animal (negative control).

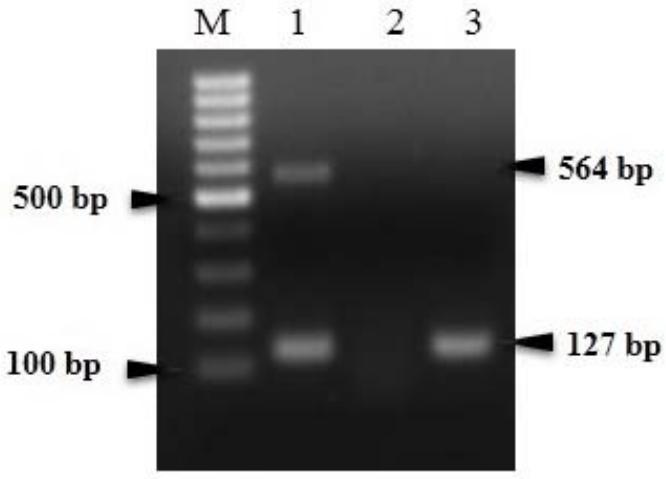

Fig. S4. Expression of *iag* transcripts in abdominal muscle tissue. Lane 1: 564 bp *iag* fragment amplified from muscle cDNA of animals injected with pcD-IAGorf; L 2: No amplification from DNAse I treated abdominal muscle total RNA used for cDNA preparation; L 3: 127 bp ef1α fragment amplified from muscle cDNA of PBS injected animal. Lane M: Generuler® 100 bp ladder (Thermoscientific, USA).

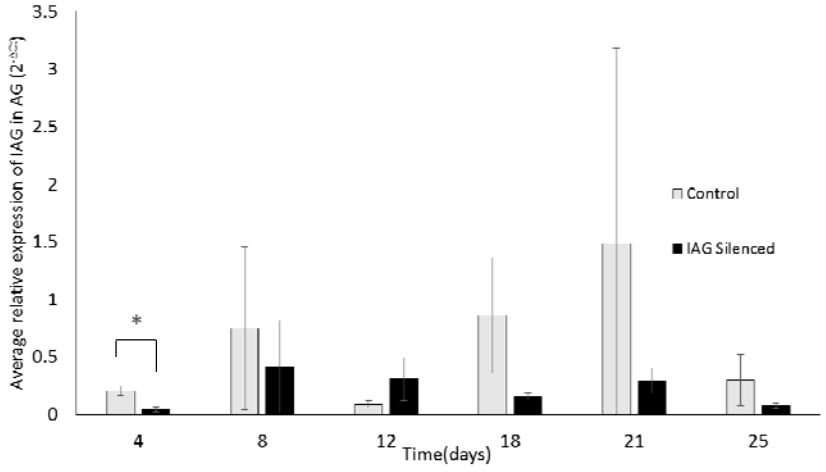

Fig. S5. IAG expression in AG of E1 samples. The bars represent average relative expression of endogenous *iag* transcripts normalized with EF1α. Vertical lines above the bar represent SEM. N=3 for each group at each time point. Asterisk denotes statistically significant difference in mean values ($P<0.05$).