

## >Megabalanus\_rosa\_ Mr-lcp1-122k

RVLLLPLALAĀAVLSVSATKYVYPRAISHRRPVRYLIQRSANPRIAFSFIEAQLCQPLM
RQLIRSRYPRITPELIRQLTSSRRQLPPVKQLQTLLNGLYRQRVGGPVDGLLPYVMYTRA
GRLFSRSLINPLITRLGATSKRQLPPVKQLQTLLNGLYRQRVGGPVDGLLPYVMYTRA
GRLFSRSLINPLITRLSASKIQLQFLKFLTRIDPRIMKENIGDNIFSEVRGSLAGINSY
RRLSVPVLRNLYNTFVSVIGGNGRSQFLLGLSQRQRLQHFSTSLGLYLGQNRNQLPTLLK
NNALMYQDFAGDIDGQYILHSSGIRLLGQLQQQQSEADRFHQLEHDHFEAVSDVLSSI
RYQRSISWSLPHLGYSGLIARFFYGELDVGQTDILARYLISALSGYGAVSRSAFVKTG
GLVNSLQYLPYVRGLPSNTVSTIQQADLARILGGLNLPGLSPRLTPGILQAARRSQFITQ
VMLAALMHGVRFTTPQQSTLLFRDVFASLLMQEKNFNAARTFSFLGDRLRPFALMCRVTI
PMMRPAIRRIPDIRMLPLSGISLQDALRRGLQLLQFAGLARRGINPRRHIVPQPPA
PTEPPFPSIVVSRITLRSVVARRVYVLLHGSIPILTVEMLQPVLQLLVEREVVPVVLLRS
PDKLVVRLQQVLKAVRPLLVMATKAAMVPSFVTDKAFTSDIARVAFILDILVIYAHGYTE
LQPPLVTNSVQALRAYYGANKAFQPPVPLQYSNQYFPQLVARGLLARPLIKGSMTLPAL
TVTNTLSGLRPVYGRVTYHGLGSVLSYPGAAPLLAGIKGTDSAALIRALTFGATKPVFQL
SQGDVSGLQDILKPLTLFDKKYSVQDLQFLFAFGVRDLRIPRSIVSSRITSLFRESIVSF
IGTKKPLITNRIVNPAYLNIVINDFLVDKLTSGYLSPRVQVRVPAGQSVTLRRAQLTSLM
RQSLQPLERMLPSYLGQLITLAIPEVRVLRTVKPTSLLPSFGRYLSSGPRRNFRFSLTD
NEFSGILGQLRSQRYLPGFFLRYPPRLQRYYFDNLFGSFAYSLVRQSSEQFSGGALRHS
VYVNSFRSLIPSFFRSKKFTNLGDLFGGAPDYFSLCRRTFRTLPGLQIIRHPSNVGGIH
HVVNGRMVGSYKAAKASGFFSK



# > Megabalanus\_rosa\_ Mr-lcp1-122k RVLLLIPLALAAAVLSVSATKYVYPRAISHRRPVRYLIORSANPRIAFSFIFAOLCOPLM

RQLLRSRYPRPTPELLRQLTSSRRQLPPVKQLQTLLNGLYRQRVGPIYDGLLPYVMYTRA
GRLFSRKSLLNPLTRLSASKIQLOFLKELTRIDPRILMKENIGDNIFSEVRGSLAGINSSY
RRIS-PYPLRNJYNTFVSVIGGORGSOFLIGI-SQRQRLQHFSTSLGIYLGQNRSNQLPTLLK
NNALMYQDFAGDIDGQYILHSSGIRLLGQLQQQQSEADRFFHQLEHDHFEAVSDVLSSI
FRVQRSISWKSLPHLGYSGLLARRFYPGLDVGQTDIJARYILSALSGYGAVSRSAFVKTG
GLIVNSLQYLPVKGIPSNTVSTIQOADLARILGGLNPGLSPRLTPGILOAARRSGFTQ
VMLAALMHGVRFTTPQQSTLLFRDVFASLLMQEKNFNAARFTSFLGDRLRPFALMCRVTI
PPMARPAIRRIPDIRMLPLSGIISLQDALRRGLIQLPAGLARRVGIIVRPRRHVIPVQPPA
PTEPPFPSVSVSRITLSSVVARRAVVVLLHGSJITLTVEMLQPVQLLVLREVEVYVLLRS
PDKLVVRLQVLKAVRPLLVMATKAAMVPSFVTDKAFTSDIARVAFILDILVIYAHGYTE
LQPPLVTNSVQAILRAYYGANKAFQPVPYLQYSNQYFPQLVARGLLARPLRLGSMTLPAL
TYNTTISGLRPVGRVTYHGLSSVLSYPGAPLLAGIKGTDSAALIRALTFGATKPVFQL
SQGDVSGLQDILKPLTLFDKKYSVQDLQFLFAFGVRDLRIPRSIYSSRITSLFRESLVSF
IGTKKPLTNRIYNPAVLAIVINDFLVDKLTSGYLSPRRVQRVPAGGSVTLRRAQLTSLM
ROSLQPLRRMLPSYLGQLUTAJPEVRVLRTVYPSTLLPSFGRVLGSGPFRRKFRSITD
NEFSGILGQLRSQRYLPGFFLRYPPRLQRYYFDNLFGSFAAYSLVRQSSEQFSGGALRHS
VVYNSFSRSLIPSFFRSRKFTNLGDLFGGAPDYFSLCRRTFRTLPGLQIIRHPSNVGGIH
HVVNORGMVGSYKYAAKASGFFSK

### B amphitrite k55 2957215

UQPIYEGL PYILYINRAGSRIFSKKSLLSPLRRITPSDVQLQFLRFLTRIDRRIVSEPV
GDDVFSAVRQSLVDVNSGYGGLSVPLLRNLYGTFVSVIGGNGRSRFLLGLSPQRRLQHFS
SLGLYLRAARGQLPALLKNSALLYQDFAGDVDSRYILHSSGIRLIGLERQQESEADRF
FLELEHDHFEAVNDVLSSIFRVQRSISLSSLFRLGYSGVLARR\*PYPGLDVAQTDVIARM
IRALSSYGAISGSVAKTGGLLQSLPYLPVVRGLPVNTVSSIQQADLASILGSLNLSGLRS
RLTPEVLQAARGGPFITQALLASLLHGVRFTSPQQGVLLFRDLLASLLMHEKRFDPAQFT
SFLGDPIRPFVLLNRIVPNTT.PAIRRIPKIQLI.PLINSILSLRGALQRGIVQLPPG

### >B amphitrite k75 2477949

PSINVSRVSIGSAAARRI FALLSGGIPVLTVGLLQPVLQLLVERQVVPVALLRAPDQLEA RLQDLLKALQPUSVASQAATVPSFVTDKTFTADSARVAVILDLLVIYSRGYTVLEAPLI SSSVIATLRSYYTANRAFEPIPFLAYSDRFFPQLIAGGLARPLRLGSSTLSPATVTATL AGI RPAYGPVTYHGLASVI GYRGAAPLI RGVDLTDFTALVRX

### >B amphitrite k75 2510032

LRPAYGPVTYHGLASVLGYRGAAPLLSGLDLTDPKALVRALTFGASKPAFQLSESEVSGL QEILKPITLFDRQYSLADLQFLFSFGVRELRIPRSIYGGRLAPLFRESLTSFIATRKSLI ADRAYNPAYLRIVVDQLLVDKLTSGELSPRVQVRIPSGRLTLRRSQVSRLVRRSLLP

## >B amphitrite k55 979678

LRRSQVSRIVRISLLPLQLRLLPPFVGQLLTVAVPEVRLLRHAKPASLLSSFGQYLGSEP FRIFRFSLADDEFSAVLGALTRQRRLPGFFLRYPSRLQRYYLDNLFGSFAAYSLLRYNAQ ELVTEPLSHSALFESFSTSLVPSFFKGHKFSGLGDLLGVAPDYFTLCRRTFSTLPGLQAI RPPVHIAX

## >B amphitrite k55 2957215

LVQPIYPGLLPYYLYNRAGSRLFSKKSLLSPLRRLTPSDVQLQFLRFLTRIDRRLVSEPV GDDVFSAVRQSLYDVNSGYGGLSVPLLRNLYGTFVSVIGGNGRSRFLLGLSPQRRLQHFS TSLGLYLRAARGQLPALLKNSALLYQDFAGDVDSRYILHSSGIRLIGELERQQESEADRF FLELEHDHFEAVNDVLSSIFRVQRSLSLSSLPRLGYSGVLARRFYPGLDVAQTDVIARYI IRALSSYGAISGSVAKTGGLLQSLPYLPYVRGLPVNTVSSIQQADLASILGSLNLSGLRS RLTPEVLQAARGGPFITQALLASLLHGVRFTSPQQGVLLFRDLLASLLIMHEKRFDPAQFT SFLGDPIRPFVLLNRIIVPNTLPAIRRIPKIGLLPLNSILSLRGALQRGIVQLPPG

59% coverage 72% identity

34% coverage

# >B\_amphitrite\_k75\_2477949

PSIVVSRVSIGSAAARRLFALLSGGIPVLTVGLLQPVLQLLVERQVVPVALLRAPDQLEA RLQDLLKALQPLVSVASQAATVPSFVTDKTFTADSARVAYILDLLVIYSRGYTVLEAPLI SSSVIATLRSYYTANRAFEPIPFLAYSDRFFPQLIAQGLLARPLRLGSSTLSPATVTATL AGLRPAYGPVTYHGLASVLGYRGAAPLLRGVDLTDPTALVRX

29% coverage 66% identity

# >B\_amphitrite\_k75\_2510032

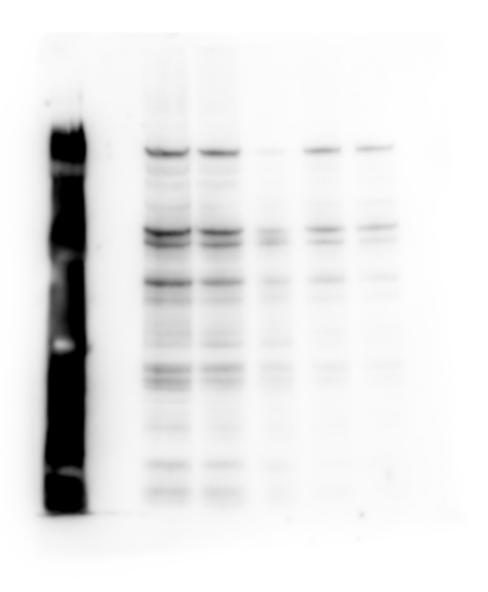
IAPAYGPYTYHGLASVLGYRGAAPLLSGLDLTDPKALVRALTFGASKPAFQLSESEVSG QEILKPITLFDRQYSLADLQFLFSFGVRELRIPRSIYGGRLAPLFRESLTSFIATRKSLI ADRAYNPAYLRLVYDQLLVDKLTSGELSPRVQVRIPSGRLTLRRSQVSRLVRRSLLP

20% coverage 69% identity

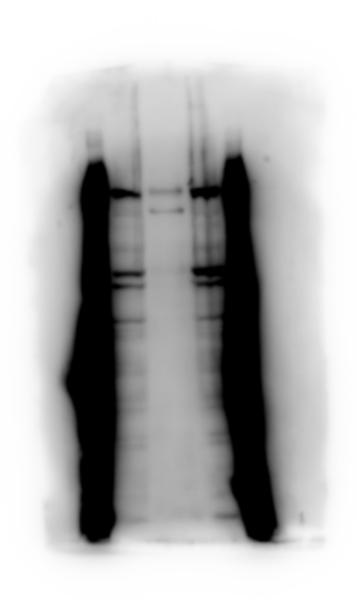
# >B\_amphitrite\_k55\_979678

IRRSQVSRLVRRSLLPLQLRLLPPFVGQLLTVAVPEVRLLRHAKPASLLSSFGQYLGSEP FRRFRFSLADDEFSAVLGALTRQRRLPGFFLRYPSRLQRYYLDNLFGSFAAYSLLRYNAQ ELVTEPLSHSALFESFSTSLVPSFFKGHKFSGLGDLLGVAPDYFTLCRRTFSTLPGLQAI RPPVHIAX

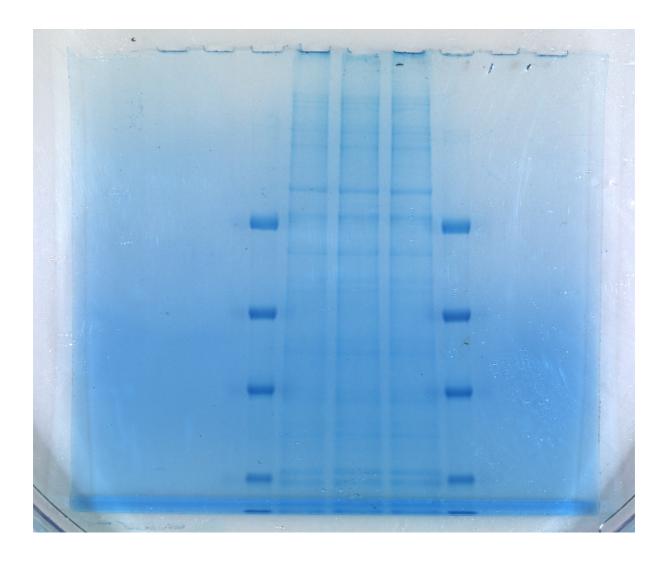
**Supplementary Figure 1:** Identification of a cement gland-specific Mr-lcp1-122k by MS/MS, and alignment to equivalent sequences in the B. amphitrite transcriptome. **A)** MS/MS-generated peptides mapped onto (left) the *M. rosa* full-length sequence and (right) four contigs from the *B. amphitrite* transcriptome. **B)** Mapping of the *B. amphitrite* sequences onto the *M. rosa* sequence. Sequences sharing significant identity are indicated by their colour. The coverage of the respective *B. amphitrite* sequence and its identity match to the equivalent stretch of *M. rosa* sequence are indicated for each *B. amphitrite* contig.



**Supplementary Figure 2:** A chemiluminescence western blot using wheat germ agglutinin to label whole-cyprid extract, resolved using SDS-PAGE.



**Supplementary Figure 3:** A chemiluminescence western blot using wheat germ agglutinin to label cyprid cement glands, resolved using SDS-PAGE.



**Supplementary Figure 4:** An SDS-PAGE gel of whole-cyprid extract immunoprecipitated using wheat germ agglutinin.



**Supplementary Figure 5:** A chemiluminescence western blot using the chitin-binding domain to label whole-cyprid extract, resolved using SDS-PAGE.



**Supplementary Figure 6:** A chemiluminescence western blot using an antibody to Mr-lcp1-122k to label whole-cyprid extract, resolved using SDS-PAGE.

**Supplementary Table 1:** A summary of MS/MS data (Supplementary Data 1 & Supplementary Table 2), produced from WGA-immunoprecipitated cyprid proteins, used to identify 4 contigs from the *B. amphitrite* transcriptome that matched the Mr-lcp1-122k cement gland-specific protein in *M. rosa*.

Representative B. amphitrite contig	Identity with equivalent <i>M. rosa</i> 122 kDa sequence	No. related contigs matched by MS/MS	No. peptides per related contig	Representative contig (column 1) coverage by MS/MS peptides (column 4)
k55_2957215	72 %	4	4;2;2;1	59 %
k75_2477949	65 %	3	3;3;3	34 %
k75_2510032	66 %	3	3;3;2	29 %
K55_979678	69 %	3	3;3;2	20 %

**Supplementary Table 2:** Amino acid sequence fragments identified by Edman degradation of gel bands, relating to Mr-lcp1-122k.

K or R / xLPsNTVstiqqa		
K or R / LTPGILQAAr		
K or R / xxglv		
K or R / AFQPVPYLQY-		
K or R / FsLTDnef-		