

**a**

*Carcinus maenas* cryptocyanin

MKVLAVFGLLALS AVAAWPGYAMSDEPDGVS VHQKQHDVN YAFY **KIFEPLREN**  
**N**LADKAATFNPLADFS MYKDGDAVRHLMDEL TQGHLL EKKHWAVASNKRHLE  
EAIMLFEVFMQCIDWNCVASNGAYFRERVN EEEFIY AAYHAIKHSPLTQHVV  
PAMYEVKPHHFTKTQVIEEAYEAHEM KLNHVFFQTNFTGTPNDIEQRVAYFRE  
DIGVGTHHLMIHLENPFWWKDTYGYHIDR KGENFFYAYHQLLNRYEAERISNH  
LRPLEELKLDEPLEQGFAPQTTYKFGG PPIRND DIHLHDVDKLGKIHEIVHM  
EDRIHDAIAHG YVEDEQGNKINIENDNG IDVLDGDI IQSSMYS PNRKYYGNLTT  
MAYNMLDHQTD PKNKYDTPPGVLAHLE TLPRDPAAWRLH KRIDNIFREHIDSL  
PPYTKDQLVFPGITVSDIQIQGNLE TYFEEYKYDLVNAFN DNSSEAEFYGIYA  
TMPRLNHKEFTYKINVENNNGASKKSVIRILAMPYRDGNGV IIPFDEGRWLAI  
EMDLFIKTLTPGGNEITRKSSEASITVPDVPT YKTLTEMTEAHQ NLEMYESAT  
GIPNRLLLPKGNEEGVEFRLMVAVTDA DQDVNDESIITM NKYHHYGV RGVQP  
KRPFYPLDRRVPDEHIIDEV PNIKETMVKVYNHNVFIPIPHN -

**b**

*Homarus americanus* thymosin

MSTETHLK **DLPKVD TALK** GQLEAFTPKLKKIDTEEKVTLPTKDDIETERTHQ  
SIFQVGTGFDKTS MRHAETQE KIALPAKEDIVA EKQQALRQGI EGFNPSALK  
RTETQEKNKLPTKEEIEQEKA -

**c**

*Homarus americanus* histone 2A

MSGRGKGGKVKGKSKSRSSRAGLQFPVGR IHRLLRKGNYAERVGAGAPVYLAA  
VMEYLAAEVL ELAGNAARDNKKTRIIPRHLQLAIRNDEELNKLLSGVTIAQGG  
VLPNIQ **AVLLPKKTEK** -

**d**

*Homarus americanus* cytoplasmic type 3 actin gi|207298847|gb|

ACI23575.1|

MCDDDVAALVVDNGSGMCKAGFAGDDAPRAVFPSTVGRPRHQGV MVMGMQKDSYVGDE  
AQSKRGILTLYPIEHGVVTNWDDMEKIWHHTFYNE **LRVAPEEHPVLL** TEAPLNPKAN  
REKMTQIMFETFNTPAMYASIQAVLSLYASGR TTGIVLDSGDGVSHTVPIYEGYALPH  
AILRLDLAGRDLTDYLMITLTERGYTFTTTAEREIVRDIKEKLCYVALDFEEMATST  
QSSSLEKSYELPDGQVITIGNERFRCPEALFQPSFLGMENAGIHETTYNSIMKCDVDI  
RKDLYANTVLSGGTTMYPGIADRMQKEITSLAPSTMKIKIIAPPERKYSVWIGGSILA  
SLSTFQQMWISKQEYDESGPSIVHRKCF -