Edwin Ruiz e1ruiz@ucsd.edu A17136339

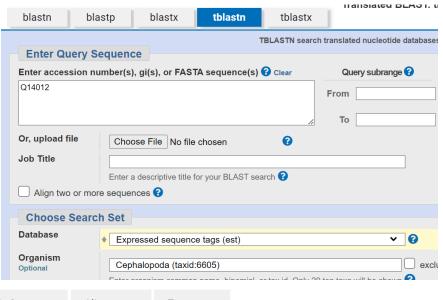
Project Part 1: Find A Gene

1) Name: Calcium/calmodulin dependant protein kinase type 1 (CAMK1)

Accession: Q14012 Species: Human

2) Method: TBLASTN search against Cephalopoda ESTs

Database: Expressed Sequence Tags (est) Organism: Cephalopoda (taxid: 6605)





Chosen match: Accession JK511422.1, a 883 base pair clone from Doryteuthis pealeii.

oy92e09.y1 Woods Hole Squid Stellate Ganglia cDNA Library Doryteuthis pealeii cDNA, mRNA sequence

Sequence ID: JK332248.1 Length: 883 Number of Matches: 1

Range	1: 26		Next Match A	Previous Ma	
		Expect Method Identities Positive 7) 2e-19 Compositional matrix adjust. 76/289(26%) 131/2		Gaps 36/289(12%)	Frame +2
Query	20	YDFRDVLGTGAFSEVILAEDKRTQKLVAIKCIA-KEALEGKEGSMENEI Y+ + LG G + V A+++ + ++VA+K + + EG S EI			
Sbjct	26	YEKLENLGEGTYGTVYKAKNRDSHEIVALKRLRLDDDDEGVPSSALREICLLKEL			
Query	79	VALDDIYESGGHLYLIMQLVSGGELFDRIVEKGFYTERDASRLIFQV V L D+ S L L+ + + FD G ++O+			
Sbjct	206	VRLHDVLHSEKKLTLVFEYCDQDLKKYFDSCNGEIDPDTVKSFMYQL			
Query	137	IVHRDLKPENLLYYSLDEDSKIMISDFGLSK-MEDPGSVLSTACGTPGY ++HRDLKP+NLL ++++ ++ ++DFGL++ P S T Y			
Sbjct	380	VLHRDLKPQNLLINKNGELKLADFGLARAFGIPVRCYSAEVVTLWY			
Query	195	YSKAVDCWSIGVIAYILLCGYPPFYDENDAKLFEQILKAEYEFD- YS ++D WS G I L P + ND K ++L E		-SP 240	
Sbjct	551	YSTSIDMWSAGCIFAELANAGRPLFPGNDVDDQLKRIFKLLGTPTEDTW	PGVTQLP	YKP 730	
Query	241	YWDDISDSAKDFIRHLMEKDPEKRFTCEQALQHPWIA Y W + + ++ ++ L+ +P +R E+ +QH + A			
Sbjct	731	YPIYHVSTAWPQVVPKLNSKGRELLQRLLVCNPSQRLCSEEGMQHSYFA			

3) >26-877_1 oy92e09.y1 Woods Hole Squid Stellate Ganglia cDNA Library Doryteuthis pealeii cDNA, mRNA sequence (result taken from EMBOSS Transeq EBI) YEKLENLGEGTYGTVYKAKNRDSHEIVALKRLRLDDDDEGVPSSALREICLLKEL KHKNIVRLHDVLHSEKKLTLVFEYCDQDLKKYFDSCNGEIDPDTVKSFMYQLLR GLAFCHSNNVLHRDLKPQNLLINKNGELKLADFGLARAFGIPVRCYSAEVVTLW YRPPDVLFGAKLYSTSIDMWSAGCIFAELANAGRPLFPGNDVDDQLKRIFKLLGT PTEDTWPGVTQLPDYKPYPIYHVSTAWPQVVPKLNSKGRELLQRLLVCNPSQRLC SEEGMQHSYFA

Name: Woods Hole Squid Stellate Ganglia

Species: Doryteuthis pealeii

4) As seen in the below, none of the results match my sequence above, making this protein novel.

