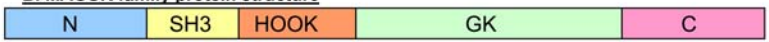
A. Comparison of CACNB2 exon homology and size.

	Human β2		Zf β2.1		Zf β2.2		Fugu β2		Tetraodon β2	
	Exon	Size (bp)	Exon	Size (bp)	Exon	Size (bp)	Exon	Size (bp)	Exon	Size (bp)
1	1ATG	120								
2	2ATG	36								
3	3	93					1	93	1	93
4	4ATG	48			1ATG	48	2ATG	48	2ATG	48
5					2ATG	18				
6			1ATG	33			3ATG	33	3ATG	33
7	5ATG	51								
8	6ATG	69	2ATG	66			4ATG	69	4ATG	69
9	7	120	3	120	3	78	5	120	5	120
10	8	123	4	123	4	123	6	123	6	123
11	9	137	5	137	5	140	7	137	7	137
12	10	77	6	77	6	62	8	77	8	77
13					7	23				
14			7*	122						
15	11	134	8	134			9	134	9	134
16	12	20	9	20						
17	13	24								
18	14	81	10	81	8	81	10	81	10	81
19	15	59	11	59	9	59	11	59	11	59
20	16	110	12	110	10	110	12	110	12	110
20	17	152	13	152	11	152	13	152	13	152
21	18	96	14	96	12	96	14	96	14	96
22	19	186	15	195	13	174	15	183	15	183
23	20	495	16	564	14	204	16	636	16	648

B. MAGUK family protein structure



C. Percent amino acid identity in β2 core region

	Zf β2.2	Zf β2.1	Fugu β2	Tet. β2	Xen. β2	Gallus β2
Homo β2	62	87	91	88	96	98
Gallus β2	62	87	90	88	97	
Xenopus β2	62	85	89	86		
Tetraodon β2	60	85	97			
Fugu β2	62	89				
Zebrafish β2.1	61					

D. Transcript varients (tv) produced by alternative splicing

Zf β2.1_tv:		Genbank ID
1	1-3-4-5-6-8-10-11-12-13-14-15-16	EU301434
2	1-3-4-5-6-9-10-11-12-13-14-15-16	EU301435
3	1-3-4-5-6-8-9-10-11-12-13-14-15-16	EU301436
4	1-3-4-5-6-7*-8-10-11-12-13-14-15-16	EU301437
5	2-3-4-5-6-8-10-11-12-13-14-15-16	EU301438
6	2-3-4-5-6-9-10-11-12-13-14-15-16	EU301439
7	2-3-4-5-6-8-9-10-11-12-13-14-15-16	EU301440
8	2-3-4-5-6-7*-8-10-11-12-13-14-15-16	EU301441

Zf β2.2_tv:		
1	1-3-4-5-6-7-8-9-10-11-12-13-14	EU301442
2	2-3-4-5-6-7-8-9-10-11-12-13-14	EU301443