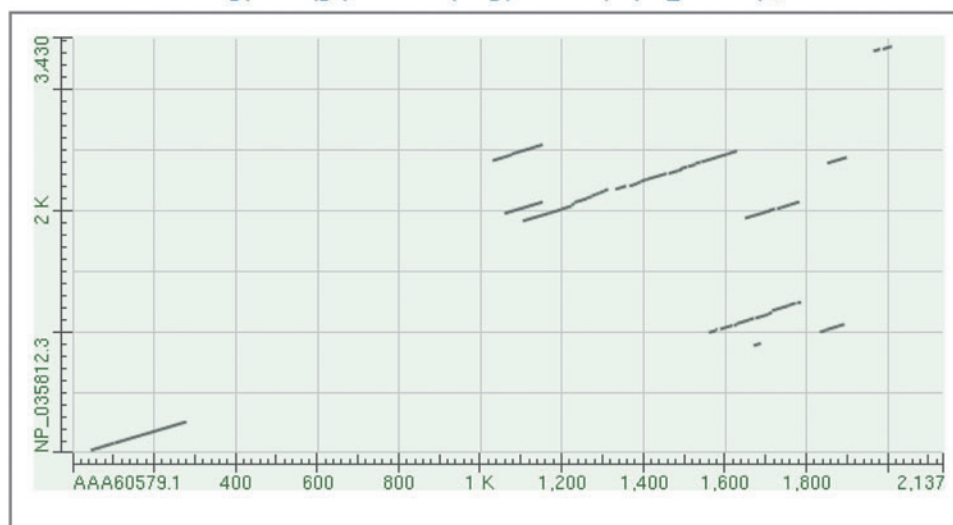


Plot of gj|338441|gb|AAA60579.1| vs gj|110431378|ref|NP\_035812.3



Summary of the most significant hits between human beta-spectrin and mouse utrophin:

Hits	% identity	% pos	align length	mismatches	gap opens	q. start	q.end	s.start	s.end	E value	bit score
1	45.76	65.25	236	126	2	45	279	22	256	2.00E-62	226
2	25.76	50.76	132	89	3	1031	1153	2410	2541	3.00E-07	44.3
3	26.6	44.68	94	69	0	1060	1153	1975	2068	4.00E-06	40.4
4	21.57	39.05	612	360	23	1105	1630	1912	2489	6.00E-04	33.5

Alignment statistics for match #1						
Score	Expect	Method	Identities	Positives	Gaps	
226 bits(575)	2e-62	Compositional matrix adjust.	108/236(46%)	154/236(65%)	2/236(0%)	
hSpec 45	IKALADEREVVQKKTFTKWNSHLARVS-CRITDLYKDLRDGRMLIKLLEVLSGEMLPKP	103				
mÜtro 26	IK+ +DE VQKKTFTKW+N+ ++ I+D++ DL+DGR L+ LLE L+G LPK	84				
hSpec 104	IKSRSEHNDVQKKTFTKWINARFSKSGKPPISDMFSDLKDRKLLDLEGLTGTSLPK-	84				
hSpec 104	TKGKMRHICLENVDKALQFLKEQRVHLENMGSHDIVDGNHRLVGLIWTIILRFQIQDIV	163				
mÜtro 85	+G R+H L NV++ LQ L + V L N+G DIVDGN +L LGL+W+IIL +Q++D++	144				
hSpec 164	ERGSTRVHALNPNRVLQVLHQNNDLVNIGGTDIVDGNPKLTGLLWSIILHWQVKDVM	144				
hSpec 164	VQTQEGRETRSAKDALLWCQKMTAGYPHVNVNFTSSWKDGLAFNALIHKHRPDLIDFD	223				
mÜtro 145	+ +++ LL W + T Y VNV NET+SW DGLAFNA++H+PDL +D	204				
hSpec 224	KDIMSLLQQTNSEKILLSWVRQTRPYSQVNVNFTTSDGLAFNAVLRHHRKPDFLFSWD	204				
hSpec 224	KLKDSNARHNLEHAFNVAERQLGIIPLLDPEDVFTENPDEKSIITYVVFYHYFSK	279				
mÜtro 205	++ + LEHAF+ A LGI LLDPEDV PD+KSII Y+ + + +	260				
hSpec 224	RVKMSPIERLEHAFSKAHTYLGIEKLLDPEDVAVHLPDKKSIIMYLTSLFEVLPQ	260				

**SUPPLEMENTARY FIG. S3.** Summary of similarity hits between human  $\beta$ -spectrin and mouse utrophin. The two-protein BLAST comparison search was performed according to the Position-Specific Iterative Basic Local Alignment Search Tool (PSI-BLAST) method from the NCBI website. *Top:* A dot matrix view. Alignment analysis of human  $\beta$ -spectrin and mouse utrophin showed several hits. *Middle:* The best four hits. *Bottom:* The two-sequence alignment of the most significant hit is also shown.