

**BLASTn Search Outputs of the DNA Sequences at the Parental Locus of Maize Event DAS-40278-9 against GenBank N0-human and No-mouse ESTs (est\_others)**

BLASTN 2.2.21 [Jun-14-2009]

Reference: Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schaffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", *Nucleic Acids Res.* 25:3389-3402.

Query= DAS-40278-9\Original\Locus  
(2212 letters)

Database: /usr/local/blast/db/blastlibs/est\_others  
52,386,385 sequences; 29,661,423,624 total letters

Searching..... done

			Score	E
Sequences producing significant alignments:			(bits)	Value
gb	FL476102.1	2002854 CERES-227 Zea mays cDNA clone 400160 3', ...	167	3e-37
gb	CF273097.1	EST2659 Zea mays sperm cell cDNA library Zea mays...	123	4e-24
gb	FL432925.1	25247980 CERES-CB5 Zea mays cDNA clone 1220987 3'...	121	2e-23
gb	DW974630.1	MSAM293083_3262_0305 LCM-dissected maize shoot ap...	121	2e-23
gb	FL470578.1	25237854 CERES-CB5 Zea mays cDNA clone 1155571 3'...	119	7e-23
gb	FL307895.1	2966196 CERES-227 Zea mays cDNA clone 507820 5', ...	109	7e-20
gb	EG290874.1	MSAM213298_2794_1558 LCM-dissected maize inbred l...	100	6e-17
gb	EG104957.1	MSAM177786_0974_2612 LCM-dissected maize inbred l...	100	6e-17
gb	EG137547.1	MSAM244923_1299_3204 LCM-dissected maize inbred l...	100	6e-17
gb	FL451865.1	13100827 CERES-CB5 Zea mays cDNA clone 1218827 3'...	98	3e-16
gb	FL451864.1	10982021 CERES-CB5 Zea mays cDNA clone 1218827 3'...	98	3e-16
gb	EG211835.1	MSAM058196_3231_0905 LCM-dissected maize inbred l...	98	3e-16
gb	FL455073.1	16632359 CERES-CB5 Zea mays cDNA clone 1146214 3'...	96	1e-15
gb	FL470481.1	10606265 CERES-CB6 Zea mays cDNA clone 1168199 3'...	96	1e-15
gb	CD526323.1	EST1750 Zea mays sperm cell cDNA library Zea mays...	94	4e-15
gb	FL347392.1	1747881 CERES-227 Zea mays cDNA clone 400160 5', ...	90	6e-14
gb	EG156227.1	MSAM281219_1210_4049 LCM-dissected maize inbred l...	88	2e-13
gb	EG272559.1	MSAM184733_2591_1943 LCM-dissected maize inbred l...	88	2e-13
gb	EG136737.1	MSAM243415_0331_1740 LCM-dissected maize inbred l...	86	1e-12
gb	EG125154.1	MSAM218621_1422_0209 LCM-dissected maize inbred l...	86	1e-12
gb	FF141400.1	OFAA-aaa62g06.b1 O. flexuosa_EST_pSMART Onchocerca...	84	4e-12
gb	EG194598.1	MSAM001557_2247_1458 LCM-dissected maize inbred l...	80	6e-11
gb	DW893845.1	MSAM113099_3559_0648 LCM-dissected maize shoot ap...	78	2e-10
gb	DW830995.1	MSAM264173_0180_3518 LCM-dissected maize shoot ap...	72	1e-08
gb	DW945813.1	MSAM225070_2378_1645 LCM-dissected maize shoot ap...	68	2e-07
gb	EG243928.1	MSAM131731_3893_1136 LCM-dissected maize inbred l...	66	9e-07

gb	EG261924.1	MSAM202212_2841_1387	LCM-dissected maize inbred l...	66	9e-07
gb	DW972233.1	MSAM287451_3885_0583	LCM-dissected maize shoot ap...	66	9e-07
gb	EG176217.1	MSAM007276_3034_2445	LCM-dissected maize inbred l...	62	1e-05
gb	DW870027.1	MSAM045979_3454_2175	LCM-dissected maize shoot ap...	62	1e-05
gb	FL967575.1	CCHY8225.b1	CCHY Panicum virgatum callus (N) Pani...	58	2e-04
gb	EG094627.1	MSAM117657_0944_3029	LCM-dissected maize inbred l...	58	2e-04
gb	EG279004.1	MSAM238822_3284_2688	LCM-dissected maize inbred l...	58	2e-04
gb	DW952766.1	MSAM246175_3627_3291	LCM-dissected maize shoot ap...	58	2e-04
gb	DW739830.1	MSAM055005_1168_1927	LCM-dissected maize shoot ap...	58	2e-04
gb	FL470601.1	10391335	CERES-CB6 Zea mays cDNA clone 1166816 3'...	56	9e-04
gb	EG122367.1	MSAM213543_0399_2532	LCM-dissected maize inbred l...	56	9e-04
gb	EG064913.1	MSAM099669_0578_1949	LCM-dissected maize inbred l...	56	9e-04
gb	DT464774.1	GH_CHX16E04.r	GH_CHX Gossypium hirsutum cDNA clon...	56	9e-04
gb	FL444656.1	1860010	CERES-197 Zea mays cDNA clone 289347 3', ...	54	0.003
gb	EG131418.1	MSAM183153_0247_2918	LCM-dissected maize inbred l...	54	0.003
gb	EG278067.1	MSAM237051_2164_0313	LCM-dissected maize inbred l...	54	0.003
gb	DW884389.1	MSAM085099_3297_2244	LCM-dissected maize shoot ap...	54	0.003
gb	EE177871.1	ZM_BFc0158M15.f	ZM_BFc Zea mays cDNA clone ZM_BFc...	54	0.003
gb	DR810967.1	ZM_BFb0038P15.f	ZM_BFb Zea mays cDNA 3', mRNA seq...	54	0.003
gb	CA129139.1	SCRFLR2034H10.g	LR2 Saccharum hybrid cultivar SP8...	54	0.003
gb	CA624360.1	wlln.pk0118.h11	wlln Triticum aestivum cDNA clone...	54	0.003
gb	FL449557.1	25275633	CERES-504 Zea mays cDNA clone 1543085 3'...	52	0.013
gb	FL181981.1	25385388	CERES-505 Zea mays cDNA clone 1664626 5'...	52	0.013
gb	FL181975.1	25382983	CERES-505 Zea mays cDNA clone 1662221 5'...	52	0.013
gb	DW945646.1	MSAM224719_2697_2993	LCM-dissected maize shoot ap...	52	0.013
gb	CF919912.1	EST4212	Zea mays sperm cell cDNA library Zea mays...	52	0.013
gb	CA179013.1	SCSGST1069C02.b	ST1 Saccharum hybrid cultivar SP8...	52	0.013
gb	CA090649.1	SCSGAM2105C02.b	AM2 Saccharum hybrid cultivar SP8...	52	0.013
gb	CA090562.1	SCSGAM2105C02.g	AM2 Saccharum hybrid cultivar SP8...	52	0.013
gb	EG171544.1	MSAM273353_0529_3957	LCM-dissected maize inbred l...	50	0.053
gb	DW840364.1	MSAM290571_0500_2033	LCM-dissected maize shoot ap...	50	0.053
gb	FL414619.1	5792184	CERES-CB5 Zea mays cDNA clone 1163363 5',...	48	0.21
gb	FL412940.1	6647374	CERES-CB5 Zea mays cDNA clone 1211549 5',...	48	0.21
gb	FL386242.1	6662328	CERES-CB6 Zea mays cDNA clone 1226503 5',...	48	0.21
gb	FL372857.1	5792169	CERES-CB5 Zea mays cDNA clone 1163348 5',...	48	0.21
gb	FL390932.1	6655462	CERES-CB5 Zea mays cDNA clone 1219637 5',...	48	0.21
gb	FL381566.1	5749223	CERES-CB5 Zea mays cDNA clone 1155021 5',...	48	0.21
gb	DW853896.1	MSAM318246_1248_2588	LCM-dissected maize shoot ap...	48	0.21
gb	DW833979.1	MSAM271088_0946_2262	LCM-dissected maize shoot ap...	48	0.21
gb	DW776038.1	MSAM143878_0611_1314	LCM-dissected maize shoot ap...	48	0.21
gb	CK327315.1	EST4624	Zea mays sperm cell cDNA library Zea mays...	48	0.21
gb	CF920066.1	EST4366	Zea mays sperm cell cDNA library Zea mays...	48	0.21
gb	CF627516.1	zmrws05_0B20-012-c03.s4	zmrws05 Zea mays cDNA 3',...	48	0.21
gb	CF050152.1	QCL8d07.yg	QCL Zea mays cDNA clone QCL8d07, mRNA ...	48	0.21
gb	BM322403.1	PIC1_4_D07.b1_A002	Pathogen-infected compatible l...	48	0.21
gb	FL163223.1	6653349	CERES-CB5 Zea mays cDNA clone 1217524 5',...	46	0.83
gb	FL163221.1	6659451	CERES-CB5 Zea mays cDNA clone 1223626 5',...	46	0.83
gb	FL163220.1	6669993	CERES-CB6 Zea mays cDNA clone 1234168 5',...	46	0.83
gb	FL163218.1	6662101	CERES-CB6 Zea mays cDNA clone 1226276 5',...	46	0.83

gb	FL163217.1	6654616 CERES-CB5 Zea mays cDNA clone 1218791 5',...	46	0.83
gb	FL163215.1	5738996 CERES-CB5 Zea mays cDNA clone 1146287 5',...	46	0.83
gb	FL163214.1	6646819 CERES-CB5 Zea mays cDNA clone 1210994 5',...	46	0.83
gb	FL163213.1	6659882 CERES-CB5 Zea mays cDNA clone 1224057 5',...	46	0.83
gb	FL061059.1	6665270 CERES-CB6 Zea mays cDNA clone 1229445 5',...	46	0.83
gb	FK991356.1	5740242 CERES-CB6 Zea mays cDNA clone 1147533 5',...	46	0.83
gb	FK991355.1	6665245 CERES-CB6 Zea mays cDNA clone 1229420 5',...	46	0.83
gb	FK991354.1	6660973 CERES-CB6 Zea mays cDNA clone 1225148 5',...	46	0.83
gb	FK991353.1	6664156 CERES-CB6 Zea mays cDNA clone 1228331 5',...	46	0.83
gb	EG126585.1	MSAM221137_0158_0475 LCM-dissected maize inbred l...	46	0.83
gb	EG224928.1	MSAM123648_2411_0798 LCM-dissected maize inbred l...	46	0.83
gb	EG308159.1	MSAM260305_2985_0046 LCM-dissected maize inbred l...	46	0.83
gb	EG094444.1	MSAM117322_1237_2624 LCM-dissected maize inbred l...	46	0.83
gb	EG105069.1	MSAM177973_0587_0066 LCM-dissected maize inbred l...	46	0.83
gb	EY958855.1	Contag_8428 Maize ovary - Eveland 2007 Zea mays c...	46	0.83
gb	DW984436.1	MSAM361482_2399_0555 LCM-dissected maize shoot ap...	46	0.83
gb	DW968659.1	MSAM278959_3123_2208 LCM-dissected maize shoot ap...	46	0.83
gb	DW964403.1	MSAM268770_3379_3722 LCM-dissected maize shoot ap...	46	0.83
gb	DW898353.1	MSAM118718_2397_0553 LCM-dissected maize shoot ap...	46	0.83
gb	DW838950.1	MSAM282407_1557_3507 LCM-dissected maize shoot ap...	46	0.83
gb	DW780235.1	MSAM153038_1935_0558 LCM-dissected maize shoot ap...	46	0.83
gb	EB400206.1	ZM_BFb0305C08.f ZM_BFb Zea mays cDNA 3', mRNA seq...	46	0.83
gb	CX065243.1	PDUts2098D12 Porcine testis cDNA library II Sus s...	46	0.83
gb	DT464708.1	GH_CHX16C10.r GH_CHX Gossypium hirsutum cDNA clon...	46	0.83
gb	CK701021.1	EST5123 Zea mays sperm cell cDNA library Zea mays...	46	0.83
gb	CA236929.1	SCSBFL5015D04.g Saccharum officinarum FL5 Sacchar...	46	0.83
gb	CA236928.1	SCSBFL5015D03.g Saccharum officinarum FL5 Sacchar...	46	0.83
gb	CD439487.1	EL01N0525E01.b Endosperm_5 Zea mays cDNA, mRNA se...	46	0.83
gb	CD437461.1	EL01N0501C03.b Endosperm_5 Zea mays cDNA, mRNA se...	46	0.83
gb	BE598886.1	PI1_83_C01.bl_A002 Pathogen induced 1 (PI1) Sorgh...	46	0.83
gb	AW066079.1	687005G08.y1 687 - Early embryo from Delaware Zea...	46	0.83
gb	FL151656.1	2009566 CERES-197 Zea mays cDNA clone 411939 5', ...	44	3.3
gb	FL163212.1	5748905 CERES-CB5 Zea mays cDNA clone 1154703 5',...	44	3.3
gb	FL151333.1	1045133 CERES-197 Zea mays cDNA clone 219978 5', ...	44	3.3
emb	CU909173.1	CU909173 Mycelium grown for 48h Podospora anseri...	44	3.3
gb	EY886124.1	LT33-C1-003-014-F05-CT.F Tahiti lime leaf, greenh...	44	3.3
gb	EG051807.1	MSAM012067_0152_2204 LCM-dissected maize inbred l...	44	3.3
gb	EG159291.1	MSAM286380_0721_2171 LCM-dissected maize inbred l...	44	3.3
gb	EG287683.1	MSAM217260_2824_1862 LCM-dissected maize inbred l...	44	3.3
gb	EG059501.1	MSAM084114_1654_1108 LCM-dissected maize inbred l...	44	3.3
gb	EG092520.1	MSAM113605_0184_3136 LCM-dissected maize inbred l...	44	3.3
gb	EG169589.1	MSAM269985_1792_2076 LCM-dissected maize inbred l...	44	3.3
gb	EY264291.1	BF01030A1B12.f1 Normalized subtracted keck librar...	44	3.3
gb	EY259966.1	BF01003X1G03.f1 Normalized subtracted keck librar...	44	3.3
gb	EY259488.1	BF01025A1E10.f1 Normalized subtracted keck librar...	44	3.3
gb	EE047687.2	ZM_BFc0120J17.f ZM_BFc Zea mays cDNA clone ZM_BFc...	44	3.3
emb	AM581222.1	AM581222 RZPD MPMGp1173 Paracentrotus lividus GA...	44	3.3
gb	DW939742.1	MSAM211340_3186_3768 LCM-dissected maize shoot ap...	44	3.3
gb	DW897577.1	MSAM116936_3007_3914 LCM-dissected maize shoot ap...	44	3.3

gb|EC102699.1| ACE00018328 1:1 combination of non-normalized and... 44 3.3  
gb|CA070197.1| SCSGAD1007H06.b AD1 Saccharum hybrid cultivar SP7... 44 3.3  
gb|CF041009.1| QCI20f01.yg QCI Zea mays cDNA clone QCI20f01, mRN... 44 3.3  
gb|BF706840.1| 281486 MARC 3BOV Bos taurus cDNA 5', mRNA sequence 44 3.3

>gb|FL476102.1| 2002854 CERES-227 Zea mays cDNA clone 400160 3', mRNA sequence  
Length = 555

Score = 167 bits (84), Expect = 3e-37  
Identities = 172/200 (86%), Gaps = 1/200 (0%)  
Strand = Plus / Minus

Query: 980 cttgtaaccaccacatatagatccatcccaagaagtagtattacgcctctctaagcg 1039  
|||||  
Sbjct: 377 cttgtaaccaccacataaagatccttaccaggaagtaggtattacgcctctccaagtg 318

Query: 1040 gcccaaacttgcaaaaaccgctatccctctctcgtgcgtccagcacgaaccattgagt 1099  
|||||  
Sbjct: 317 gccgaacctgtagaaaatcgctgtcg-tctctcgtgcatcttttacgaaccattgagt 259

Query: 1100 tacaatcaacagcaccgtcctacccaaaagcaccgcaagggtagccctgggtgtgcgga 1159  
|||||  
Sbjct: 258 tacaatcaaaagcaccattctacccaaaagcactgaggggtaacccgggtgtgcggt 199

Query: 1160 cggactctaacaccgacag 1179  
|||  
Sbjct: 198 cgggtccaacaccgacag 179

>gb|CF273097.1| EST2659 Zea mays sperm cell cDNA library Zea mays cDNA clone Zmsp7172  
5', mRNA sequence  
Length = 689

Score = 123 bits (62), Expect = 4e-24  
Identities = 179/218 (82%)  
Strand = Plus / Minus

Query: 1975 cccgacttcgctcgtgcaatgaacacgccgagtgaagtcggaggggtactggcccagata 2034  
|||||  
Sbjct: 555 cccgacttcgctcgagccatggacacaccgagtgaggtcgggtgggtattggctcgata 496

Query: 2035 gctgacggcctcccgcgaaccctagacacggaaggctaccggcggtgcttactcgagca 2094  
|||

Sbjct: 495 gccgatggcctcccctggattccggacgctgagggctatcggcggtgctcacccgagca 436

Query: 2095 gttaatcacctttaccatcactaatcctccaagcgacctacgccatgccatcaacagc 2154  
| ||||| ||||| || || ||||| || || ||||| ||||| ||||| ||||| |||||

Sbjct: 435 gctaatacattcttacctctcgctcatcctccgagtgatctacgacatgccatcaacagt 376

Query: 2155 cggcgagacacgcggagctccatcaacgcttcgcgca 2192  
||| || | ||||| ||||| ||||| |||||

Sbjct: 375 cggcgggacgatggagctccatcaacgcttcgcgca 338

>gb|FL432925.1| 25247980 CERES-CB5 Zea mays cDNA clone 1220987 3', mRNA sequence  
Length = 387

Score = 121 bits (61), Expect = 2e-23  
Identities = 109/125 (87%)  
Strand = Plus / Minus

Query: 2088 tcgagcagttaatcacctttaccatcactaatcctccaagcgacctacgccatgccat 2147  
||| || ||||| ||||| ||||| || || || || || ||||| || |||||

Sbjct: 387 tcgagtagtaatacattctgcccacgctcatccccgagcaacctacaccagccat 328

Query: 2148 caacagccggcgagacacgcggagctccatcaacgcttcgcgcgaccgatgacacgaaag 2207  
||| || ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Sbjct: 327 caacagccgacgagacgcggagctccatcaatgcttcgcgcgaccgacggcacgaaag 268

Query: 2208 tgaga 2212  
|||

Sbjct: 267 cgaga 263

>gb|DW974630.1| MSAM293083\_3262\_0305 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 137

Score = 121 bits (61), Expect = 2e-23  
Identities = 86/93 (92%), Gaps = 1/93 (1%)  
Strand = Plus / Minus

Query: 1086 acgaaccattgagttacaatcaacagcaccgtcctacccaaaagcaccgcaagggtagc 1145  
||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Sbjct: 126 acgaaccattgagttacaatcaacagcaccgtcctacccaaaacaccgcaa-aggtaac 68

Query: 1146 cctgggtgtgctggacggactctaaacaccgaca 1178  
||||||| | ||| |||||  
Sbjct: 67 cctgggtgtgcagtcgggctctaaacaccgaca 35

>gb|FL470578.1| 25237854 CERES-CB5 Zea mays cDNA clone 1155571 3', mRNA sequence  
Length = 610

Score = 119 bits (60), Expect = 7e-23  
Identities = 102/116 (87%)  
Strand = Plus / Minus

Query: 2097 taatcaccttctacccatcactaatcctccaagcgacctacgccatgcatcaacagccg 2156  
||||||| ||||| || ||||| || ||| ||||| ||| |||||  
Sbjct: 606 taatcaccttctgccatcgctcatccccgagcaacctacaccagccatcaacagccg 547

Query: 2157 gcgagacacgaggagctccatcaacgcttcgctgacccgatgacacgaaagtgaga 2212  
||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Sbjct: 546 acgagacgcgaggagctccatcaatgcttcgctgacccgatgacacgaaagtgaga 491

>gb|FL307895.1| 2966196 CERES-227 Zea mays cDNA clone 507820 5', mRNA sequence  
Length = 463

Score = 109 bits (55), Expect = 7e-20  
Identities = 97/111 (87%)  
Strand = Plus / Minus

Query: 1069 tctctcgtgctccagcacgaaccattgagttacaatcaacagcaccgtcctacccaaaa 1128  
||||||| || | ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Sbjct: 440 tctctcgtgcatctgtacgaaccattgagttacaatcaaaagcaccattcctacccaaaa 381

Query: 1129 gcaccgcaagggtagccctgggtgtgctggacggactctaaacaccgacag 1179  
|||| | ||||| ||| ||||| ||| ||| |||||  
Sbjct: 380 gcaactgaggggtaacccgggtgtgctggctcgaacaccgacag 330

>gb|EG290874.1| MSAM213298\_2794\_1558 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 119

Score = 99.6 bits (50), Expect = 6e-17  
Identities = 83/94 (88%)  
Strand = Plus / Minus

Query: 1112 caccgtcctacccaaaagcaccgcaaggggtagccctgggtgtgcggacggactctaac 1171  
|||||  
Sbjct: 111 caccgtcctacccaaaagcacctcgaggggtaacctcgggtgtgcggtcgggtcccaaac 52

Query: 1172 accgacagctggcgcgccaggtaggggtgtgtc 1205  
|||||  
Sbjct: 51 accgacagctagcgcgccaggtaggggtgtgtc 18

>gb|EG104957.1| MSAM177786\_0974\_2612 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 122

Score = 99.6 bits (50), Expect = 6e-17  
Identities = 83/94 (88%)  
Strand = Plus / Minus

Query: 1112 caccgtcctacccaaaagcaccgcaaggggtagccctgggtgtgcggacggactctaac 1171  
|||||  
Sbjct: 114 caccgtcctacccaaaagcacctcgaggggtaacctcgggtgtgcggtcgggtcccaaac 55

Query: 1172 accgacagctggcgcgccaggtaggggtgtgtc 1205  
|||||  
Sbjct: 54 accgacagctagcgcgccaggtaggggtgtgtc 21

>gb|EG137547.1| MSAM244923\_1299\_3204 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 119

Score = 99.6 bits (50), Expect = 6e-17  
Identities = 83/94 (88%)  
Strand = Plus / Minus

Query: 1112 caccgtcctacccaaaagcaccgcaaggggtagccctgggtgtgcggacggactctaac 1171  
|||||  
Sbjct: 111 caccgtcctacccaaaagcacctcgaggggtaacctcgggtgtgcggtcgggtcccaaac 52

Query: 1172 accgacagctggcgcgccaggtaggggtgtgtc 1205  
|||||  
Sbjct: 51 accgacagctagcgcgccaggtaggggtgtgtc 18

>gb|FL451865.1| 13100827 CERES-CB5 Zea mays cDNA clone 1218827 3', mRNA sequence  
Length = 108

Score = 97.6 bits (49), Expect = 3e-16  
Identities = 73/81 (90%)  
Strand = Plus / Minus

Query: 2132 acctacgccatgccatcaacagccggcgagacacgcgagctccatcaacgcttcgcgcg 2191  
||||| ||| ||||||||||||||| |||||| | ||||||||||||||| |||||||||  
Sbjct: 107 acctacaccagccatcaacagccgacgagacgcgcgagctccatcaatgcttcgcgcg 48

Query: 2192 accgatgacacgaaagtgaga 2212  
||||| | |||||||| ||||  
Sbjct: 47 accgacggcacgaaagcgaga 27

>gb|FL451864.1| 10982021 CERES-CB5 Zea mays cDNA clone 1218827 3', mRNA sequence  
Length = 613

Score = 97.6 bits (49), Expect = 3e-16  
Identities = 73/81 (90%)  
Strand = Plus / Minus

Query: 2132 acctacgccatgccatcaacagccggcgagacacgcgagctccatcaacgcttcgcgcg 2191  
||||| ||| ||||||||||||||| |||||| | ||||||||||||||| |||||||||  
Sbjct: 612 acctacaccagccatcaacagccgacgagacgcgcgagctccatcaatgcttcgcgcg 553

Query: 2192 accgatgacacgaaagtgaga 2212  
||||| | |||||||| ||||  
Sbjct: 552 accgacggcacgaaagcgaga 532

>gb|EG211835.1| MSAM058196\_3231\_0905 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 94

Score = 97.6 bits (49), Expect = 3e-16  
Identities = 58/61 (95%)  
Strand = Plus / Minus

Query: 1276 tgctttggaaccatctcatccatagcagatgaagaggggaactctgcaccgcatagcagat 1335  
||||||||| ||||||||||||||||||||||| ||||||| |||||||  
Sbjct: 77 tgctttggaacgatctcatccatagcagatgaagaggggaactctacaccgattgcagat 18



|||||  
Sbjct: 418 atcaacagccgtcgggacacgtgaagctccataaatgcttcgcg 461

>gb|CD526323.1| EST1750 Zea mays sperm cell cDNA library Zea mays cDNA clone Zmsp4711  
5', mRNA sequence  
Length = 347

Score = 93.7 bits (47), Expect = 4e-15  
Identities = 71/79 (89%)  
Strand = Plus / Plus

Query: 1149 ggggtgtgcgacggactctaaacaccgacagctggcgccaggtaggggtgtgtcttt 1208  
|||||  
Sbjct: 74 ggggtgtgcggtcggaccctaaacaccgacagctggcgccaggtaggggtgtgtcgac 133

Query: 1209 gatctgagctagctcaatg 1227  
|||||  
Sbjct: 134 gatccaagctagctcaatg 152

>gb|FL347392.1| 1747881 CERES-227 Zea mays cDNA clone 400160 5', mRNA sequence  
Length = 422

Score = 89.7 bits (45), Expect = 6e-14  
Identities = 82/93 (88%), Gaps = 1/93 (1%)  
Strand = Plus / Minus

Query: 1088 gaaccattgagttacaatcaacagcaccgtctacccaaaagcaccgcaaggggt-agcc 1146  
|||||  
Sbjct: 422 gaaccattgagttacaatcaaaagcaccattctacccaaaagcactgcgaggggtaaac 363

Query: 1147 ctgggtgtgcgacggactctaaacaccgacag 1179  
| |||||  
Sbjct: 362 ccgggtgtgcggtcgggtcctcaaacaccgacag 330

>gb|EG156227.1| MSAM281219\_1210\_4049 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 123

Score = 87.7 bits (44), Expect = 2e-13  
Identities = 85/96 (88%), Gaps = 2/96 (2%)  
Strand = Plus / Plus

Query: 563 tgtgggggatagatatcccc-gggtccactagaaggcgagaaggcctcgc-gtgtggcca 620  
||||||| ||||||| ||||||||| ||||| || | ||||  
Sbjct: 7 tgtgggggacagatatccccgggtccactagaaggcaagaaggcgccgttgcggggcct 66

Query: 621 cgggccagttaccccgaaggccatcccttcgtggg 656  
||||||| ||||||| ||||||| ||||||| |||||||  
Sbjct: 67 cgggccagttaccccacaaggccatcccttcgtggg 102

>gb|EG272559.1| MSAM184733\_2591\_1943 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 122

Score = 87.7 bits (44), Expect = 2e-13  
Identities = 85/96 (88%), Gaps = 2/96 (2%)  
Strand = Plus / Plus

Query: 563 tgtgggggatagatatcccc-gggtccactagaaggcgagaaggcctcgc-gtgtggcca 620  
||||||| ||||||| ||||||||| ||||| || | ||||  
Sbjct: 6 tgtgggggacagatatccccgggtccactagaaggcaagaaggcgccgttgcggggcct 65

Query: 621 cgggccagttaccccgaaggccatcccttcgtggg 656  
||||||| ||||||| ||||||| ||||||| |||||||  
Sbjct: 66 cgggccagttaccccacaaggccatcccttcgtggg 101

>gb|EG136737.1| MSAM243415\_0331\_1740 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 117

Score = 85.7 bits (43), Expect = 1e-12  
Identities = 73/83 (87%)  
Strand = Plus / Minus

Query: 1123 caaaagcaccgcaagggttagccctgggtgtgctggacggactctaaacaccgacagctg 1182  
||||||| ||||||| ||| ||||| ||||| ||| | |||||||||  
Sbjct: 117 caaaagcaccacaagggttaacccgggtgctgctgggtccaaacaccgacagctg 58

Query: 1183 gcgcgccaggtaggggtgtgtc 1205  
|| ||||||||| |||||||  
Sbjct: 57 gcacgccaggtaggggtgtgtc 35



Strand = Plus / Minus

Query: 1277 gctttggaaccatctcatccatagcagatgaagaggggaactctgcaccgcatagcagatc 1336  
||||||| ||||||| ||||||| ||||||| ||||| ||| ||||| |||||  
Sbjct: 83 gctttggaacaatctcatccatagcagatgaagatggaattctacaccgattgcagatc 24

>gb|DW893845.1| MSAM113099\_3559\_0648 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 100

Score = 77.8 bits (39), Expect = 2e-10  
Identities = 48/51 (94%)  
Strand = Plus / Plus

Query: 1149 ggggtgtgcgagcggactctaaacaccgacagctggcgccaggtagggg 1199  
||||||| ||||| | ||||||| ||||||| ||||||| ||||||| |||||  
Sbjct: 33 ggggtgtgcggtcggacccaaaacaccgacagctggcgccaggtagggg 83

>gb|DW830995.1| MSAM264173\_0180\_3518 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 108

Score = 71.9 bits (36), Expect = 1e-08  
Identities = 57/64 (89%)  
Strand = Plus / Plus

Query: 2140 catgccatcaacagccggcgagacacgcggagctccatcaacgcttcgcgaccgatga 2199  
||||||| || ||||| ||||||| ||||||| ||||||| ||||| ||  
Sbjct: 45 catgccatcaatagtttagcagacgcgcggagctccatcaacgcttcggtgcgaccgacga 104

Query: 2200 cacg 2203  
|||  
Sbjct: 105 cacg 108

>gb|DW945813.1| MSAM225070\_2378\_1645 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 97

Score = 67.9 bits (34), Expect = 2e-07  
Identities = 56/62 (90%), Gaps = 1/62 (1%)  
Strand = Plus / Plus

Query: 1172 accgacagctggcgcgccaggtagggggtgtgtctttgat-ctgagctagctcaatgacc 1230  
||||||| ||||||||||||||||||| ||| || ||||||||||||| ||  
Sbjct: 9 accgacagctagcgcgccaggtagggggtgtgtcgtgatcctaagctagctcaatggcc 68

Query: 1231 at 1232  
||  
Sbjct: 69 at 70

>gb|EG243928.1| MSAM131731\_3893\_1136 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 98

Score = 65.9 bits (33), Expect = 9e-07  
Identities = 45/49 (91%)  
Strand = Plus / Plus

Query: 1288 atctcatccatagcagatgaagaggggaactctgcaccgcatagcagatc 1336  
||||||| | ||||||||||||||||||| ||||||||| |||||||||  
Sbjct: 27 atctcattcgtagcagatgaagaggggaactctacaccgattgcagatc 75

>gb|EG261924.1| MSAM202212\_2841\_1387 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 114

Score = 65.9 bits (33), Expect = 9e-07  
Identities = 39/41 (95%)  
Strand = Plus / Minus

Query: 1288 atctcatccatagcagatgaagaggggaactctgcaccgcat 1328  
||||| ||||||||||||||||||| |||||||||  
Sbjct: 112 atctcgtccatagcagatgaagaggggaactctacaccgcat 72

>gb|DW972233.1| MSAM287451\_3885\_0583 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 126

Score = 65.9 bits (33), Expect = 9e-07  
Identities = 36/37 (97%)  
Strand = Plus / Minus

Query: 1475 tgtccacttcgcccaaaaggagtggacacggattac 1511

|||||  
Sbjct: 46 tgtccacttcgtccacaaaggagtggacacggattac 10

>gb|EG176217.1| MSAM007276\_3034\_2445 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 96

Score = 61.9 bits (31), Expect = 1e-05  
Identities = 43/47 (91%)  
Strand = Plus / Minus

Query: 1282 ggaaccatctcatccatagcagatgaagaggggaactctgcaccgcat 1328  
|||||  
Sbjct: 95 ggaacaatctcatcggtagcagatgaagaggggaactctacaccgcat 49

>gb|DW870027.1| MSAM045979\_3454\_2175 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 127

Score = 61.9 bits (31), Expect = 1e-05  
Identities = 37/39 (94%)  
Strand = Plus / Minus

Query: 1298 tagcagatgaagaggggaactctgcaccgcatagcagatc 1336  
|||||  
Sbjct: 123 tagcagatgaagaggggaactctacaccgcattgcagatc 85

>gb|FL967575.1| CCHY8225.b1 CCHY Panicum virgatum callus (N) Panicum virgatum cDNA  
clone CCHY8225 5', mRNA sequence  
Length = 738

Score = 58.0 bits (29), Expect = 2e-04  
Identities = 32/33 (96%)  
Strand = Plus / Minus

Query: 1166 ctaaaccgacagctggcgcgccaggtagggg 1198  
|||||  
Sbjct: 297 ctaaaccgacagctggcgtgccaggtagggg 265

>gb|EG094627.1| MSAM117657\_0944\_3029 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 88

Score = 58.0 bits (29), Expect = 2e-04  
Identities = 35/37 (94%)  
Strand = Plus / Minus

Query: 1276 tgctttggaaccatctcatccatagcagatgaagagg 1312  
|||||  
Sbjct: 38 tgctttggaacgatctcgtccatagcagatgaagagg 2

>gb|EG279004.1| MSAM238822\_3284\_2688 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 92

Score = 58.0 bits (29), Expect = 2e-04  
Identities = 65/77 (84%)  
Strand = Plus / Minus

Query: 696 ggcaacagactcgagcccaacaatccatcggtcgtgcgctatccacagaaactaccg 755  
|||||  
Sbjct: 92 ggcaatagactcaagccaagcaatctgtcaactcgtgcgctatccacagcaatcactcg 33

Query: 756 actttccggcgcgatggc 772  
|||||  
Sbjct: 32 actttccggcgcgatggc 16

>gb|DW952766.1| MSAM246175\_3627\_3291 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 143

Score = 58.0 bits (29), Expect = 2e-04  
Identities = 50/56 (89%), Gaps = 2/56 (3%)  
Strand = Plus / Minus

Query: 508 gtttttaaaagttgtgccctatatttttaaaatagggtactgatttaaaatattggt 563  
|||||  
Sbjct: 118 gtttttaaaagttgagccctatattt--aaataagatactgatttaagatattggt 65

>gb|DW739830.1| MSAM055005\_1168\_1927 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 113

Score = 58.0 bits (29), Expect = 2e-04



Sbjct: 60 gaaggctatcgacggctgcttactcgggcaggtaatcatctttctaccc 13

>gb|EG064913.1| MSAM099669\_0578\_1949 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 98

Score = 56.0 bits (28), Expect = 9e-04  
Identities = 37/40 (92%)  
Strand = Plus / Minus

Query: 1276 tgctttggaaccatctcatccatagcagatgaagagggaa 1315  
||||| ||||| ||||||| ||||||||||||||||  
Sbjct: 48 tgcttcggaacaatctcatccgtagcagatgaagagggaa 9

>gb|DT464774.1| GH\_CHX16E04.r GH\_CHX Gossypium hirsutum cDNA clone GH\_CHX16E04 3',  
mRNA sequence  
Length = 875

Score = 56.0 bits (28), Expect = 9e-04  
Identities = 46/52 (88%)  
Strand = Plus / Minus

Query: 1172 accgacagctggcgcgccaggtaggggtgtgtctttgatctgagctagctc 1223  
||||||||||||| ||||||||||||||| ||||| ||||| |||||||||  
Sbjct: 423 accgacagctggcagccaggtaggggtgtgtcactgatccaagctagctc 372

>gb|FL444656.1| 1860010 CERES-197 Zea mays cDNA clone 289347 3', mRNA sequence  
Length = 590

Score = 54.0 bits (27), Expect = 0.003  
Identities = 42/47 (89%)  
Strand = Plus / Plus

Query: 350 ggtgggtttttacagagtttaaactagcggattatatagtggtataga 396  
|||||||||| | ||||||||||| | |||||||||||||||||||  
Sbjct: 515 ggtgggttttttaaagttaaactggtggattatatagtggtataga 561

>gb|EG131418.1| MSAM183153\_0247\_2918 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 109

Score = 54.0 bits (27), Expect = 0.003



Query: 350 ggtgggttttacagagtttaactagcggattatatagtggtataga 396  
          |||||          |          |||||          |||||          |||||  
Sbjct: 120 ggtgggttttttaaagtttaactggtggattatatagtggtataga 74

>gb|DR810967.1| ZM\_BFb0038P15.f ZM\_BFb Zea mays cDNA 3', mRNA sequence  
          Length = 734

Score = 54.0 bits (27), Expect = 0.003  
Identities = 42/47 (89%)  
Strand = Plus / Plus

Query: 508 gtttttaaagttgtgccctatattttaaaatagggtactgatttaa 554  
          |||||          |||||          |||||          |||||          |||||  
Sbjct: 10  gtttttataagttgaacctatattttaaaatagagtactgatttaa 56

>gb|CA129139.1| SCRFLR2034H10.g LR2 Saccharum hybrid cultivar SP80-3280 cDNA clone  
          SCRFLR2034H10 5', mRNA sequence  
          Length = 611

Score = 54.0 bits (27), Expect = 0.003  
Identities = 30/31 (96%)  
Strand = Plus / Plus

Query: 1168 aaacaccgacagctggcgcgccaggtagggg 1198  
          |||||          |||||          |||||          |||||  
Sbjct: 440 aaacatcgacagctggcgcgccaggtagggg 470

>gb|CA624360.1| wlln.pk0118.h11 wlln Triticum aestivum cDNA clone wlln.pk0118.h11  
          5' end, mRNA sequence  
          Length = 346

Score = 54.0 bits (27), Expect = 0.003  
Identities = 42/47 (89%)  
Strand = Plus / Plus

Query: 350 ggtgggttttacagagtttaactagcggattatatagtggtataga 396  
          |||||          |          |||||          |||||          |||||  
Sbjct: 228 ggtgggttttttaaagtttaactggtggattatatagtggtataga 274

>gb|FL449557.1| 25275633 CERES-504 Zea mays cDNA clone 1543085 3', mRNA sequence

Length = 529

Score = 52.0 bits (26), Expect = 0.013  
Identities = 29/30 (96%)  
Strand = Plus / Plus

Query: 526 ctatattttaaaatagggtactgatttaa 555  
          |||||          |||||          |||||  
Sbjct: 444 ctatattttaagatagggtactgatttaa 473

>gb|FL181981.1| 25385388 CERES-505 Zea mays cDNA clone 1664626 5', mRNA sequence  
          Length = 652

Score = 52.0 bits (26), Expect = 0.013  
Identities = 29/30 (96%)  
Strand = Plus / Plus

Query: 526 ctatattttaaaatagggtactgatttaa 555  
          |||||          |||||          |||||  
Sbjct: 117 ctatattttaagatagggtactgatttaa 146

>gb|FL181975.1| 25382983 CERES-505 Zea mays cDNA clone 1662221 5', mRNA sequence  
          Length = 643

Score = 52.0 bits (26), Expect = 0.013  
Identities = 29/30 (96%)  
Strand = Plus / Plus

Query: 526 ctatattttaaaatagggtactgatttaa 555  
          |||||          |||||          |||||  
Sbjct: 117 ctatattttaagatagggtactgatttaa 146

>gb|DW945646.1| MSAM224719\_2697\_2993 LCM-dissected maize shoot apical meristem cDNA  
          Zea mays cDNA, mRNA sequence  
          Length = 101

Score = 52.0 bits (26), Expect = 0.013  
Identities = 60/70 (85%), Gaps = 1/70 (1%)  
Strand = Plus / Plus

Query: 1221 ctcaatgaccattacctc caaatgcaagatcgccctt-cgccccgggactatg ttttgc t 1279  
          |||||  ||||  ||||  ||  ||  |||||          ||  |||||  |||||  ||||

Sbjct: 19 ctcaatggccatcaccttcaagtggaagatgccttttgcgccgaaactatgttctgct 78

Query: 1280 ttggaacat 1289

|||||||||

Sbjct: 79 ttggaacat 88

>gb|CF919912.1| EST4212 Zea mays sperm cell cDNA library Zea mays cDNA clone Zmsp9055  
5', mRNA sequence  
Length = 489

Score = 52.0 bits (26), Expect = 0.013  
Identities = 57/66 (86%), Gaps = 1/66 (1%)  
Strand = Plus / Minus

Query: 1068 ctctctcgtggtccagcacgaaccattgagttacaatcaacagcaccgtcctacccaaa 1127

||||||||||| || ||||||||||||| ||||||| ||| | ||| |||||||||||||

Sbjct: 78 ctctctcgtgc-tctagcacgaaccatcgagttacgatcttcgacactgtcctacccaaa 20

Query: 1128 agcacc 1133

|||||

Sbjct: 19 agcacc 14

>gb|CA179013.1| SCSGST1069C02.b ST1 Saccharum hybrid cultivar SP80-3280 cDNA clone  
SCSGST1069C02 3', mRNA sequence  
Length = 726

Score = 52.0 bits (26), Expect = 0.013  
Identities = 29/30 (96%)  
Strand = Plus / Plus

Query: 1169 aacaccgacagctggcgcgccaggtagggg 1198

||||||||||| |||||||||||||||||||

Sbjct: 207 aacaccgacagttggcgcgccaggtagggg 236

>gb|CA090649.1| SCSGAM2105C02.b AM2 Saccharum hybrid cultivar SP80-3280 cDNA clone  
SCSGAM2105C02 3', mRNA sequence  
Length = 568

Score = 52.0 bits (26), Expect = 0.013  
Identities = 29/30 (96%)  
Strand = Plus / Plus



Length = 326

Score = 48.1 bits (24), Expect = 0.21  
Identities = 31/32 (96%), Gaps = 1/32 (3%)  
Strand = Plus / Minus

Query: 562 ttgtgggggatagatatcccc-gggtccacta 592  
|||||  
Sbjct: 99 ttgtgggggatagatatcccctgggtccacta 68

>gb|FL412940.1| 6647374 CERES-CB5 Zea mays cDNA clone 1211549 5', mRNA sequence  
Length = 467

Score = 48.1 bits (24), Expect = 0.21  
Identities = 31/32 (96%), Gaps = 1/32 (3%)  
Strand = Plus / Minus

Query: 562 ttgtgggggatagatatcccc-gggtccacta 592  
|||||  
Sbjct: 99 ttgtgggggatagatatcccctgggtccacta 68

>gb|FL386242.1| 6662328 CERES-CB6 Zea mays cDNA clone 1226503 5', mRNA sequence  
Length = 273

Score = 48.1 bits (24), Expect = 0.21  
Identities = 31/32 (96%), Gaps = 1/32 (3%)  
Strand = Plus / Minus

Query: 562 ttgtgggggatagatatcccc-gggtccacta 592  
|||||  
Sbjct: 99 ttgtgggggatagatatcccctgggtccacta 68

>gb|FL372857.1| 5792169 CERES-CB5 Zea mays cDNA clone 1163348 5', mRNA sequence  
Length = 277

Score = 48.1 bits (24), Expect = 0.21  
Identities = 31/32 (96%), Gaps = 1/32 (3%)  
Strand = Plus / Minus

Query: 562 ttgtgggggatagatatcccc-gggtccacta 592  
|||||  
Sbjct: 99 ttgtgggggatagatatcccctgggtccacta 68

>gb|FL390932.1| 6655462 CERES-CB5 Zea mays cDNA clone 1219637 5', mRNA sequence  
Length = 271

Score = 48.1 bits (24), Expect = 0.21  
Identities = 31/32 (96%), Gaps = 1/32 (3%)  
Strand = Plus / Minus

Query: 562 ttgtgggggatagatatcccc-gggtccacta 592  
|||||  
Sbjct: 99 ttgtgggggatagatatcccctgggtccacta 68

>gb|FL381566.1| 5749223 CERES-CB5 Zea mays cDNA clone 1155021 5', mRNA sequence  
Length = 187

Score = 48.1 bits (24), Expect = 0.21  
Identities = 31/32 (96%), Gaps = 1/32 (3%)  
Strand = Plus / Minus

Query: 562 ttgtgggggatagatatcccc-gggtccacta 592  
|||||  
Sbjct: 99 ttgtgggggatagatatcccctgggtccacta 68

>gb|DW853896.1| MSAM318246\_1248\_2588 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 109

Score = 48.1 bits (24), Expect = 0.21  
Identities = 27/28 (96%)  
Strand = Plus / Plus

Query: 1171 caccgacagctggcgcgccaggtagggg 1198  
|||||  
Sbjct: 1 caccgacagtggcgcgccaggtagggg 28

>gb|DW833979.1| MSAM271088\_0946\_2262 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 136

Score = 48.1 bits (24), Expect = 0.21  
Identities = 31/32 (96%), Gaps = 1/32 (3%)  
Strand = Plus / Plus

Query: 562 ttgtgggggatagatatcccc-gggtccacta 592  
          |||||  
Sbjct: 64 ttgtgggggatagatatcccctgggtccacta 95

>gb|DW776038.1| MSAM143878\_0611\_1314 LCM-dissected maize shoot apical meristem cDNA  
      Zea mays cDNA, mRNA sequence  
      Length = 121

Score = 48.1 bits (24), Expect = 0.21  
Identities = 42/48 (87%)  
Strand = Plus / Plus

Query: 881 agtgcacacggtcgtgtatataaggtccagagggtaccccatcatt 928  
          |||||  
Sbjct: 6 agtgcacacggtcatgtatataaggcctaggaggaaccccatcatt 53

>gb|CK327315.1| EST4624 Zea mays sperm cell cDNA library Zea mays cDNA clone  
      Zmsp11503 5', mRNA sequence  
      Length = 655

Score = 48.1 bits (24), Expect = 0.21  
Identities = 31/32 (96%), Gaps = 1/32 (3%)  
Strand = Plus / Minus

Query: 562 ttgtgggggatagatat-ccccgggtccacta 592  
          |||||  
Sbjct: 206 ttgtgggggatagatatccccgggtccacta 175

>gb|CF920066.1| EST4366 Zea mays sperm cell cDNA library Zea mays cDNA clone  
      Zmsp10511 5', mRNA sequence  
      Length = 434

Score = 48.1 bits (24), Expect = 0.21  
Identities = 45/52 (86%)  
Strand = Plus / Plus

Query: 1071 tctcgtgctccagcagcaaccattgagttacaatcaacagcaccgtcctac 1122  
          |||||  
Sbjct: 343 tctcgtgcccctgcagcaaccatcgagctacagtcggcagcaccgtcctac 394

>gb|CF627516.1| zmrws05\_0B20-012-c03.s4 zmrws05 Zea mays cDNA 3', mRNA sequence  
Length = 672

Score = 48.1 bits (24), Expect = 0.21  
Identities = 43/48 (89%), Gaps = 1/48 (2%)  
Strand = Plus / Minus

Query: 563 tgtgggggatagatatcccc-gggtccactagaaggcgagaaggcctc 609  
||||| ||||| ||||||||||| ||||||||||||||| ||||| |||||  
Sbjct: 391 tgtgaggacagatatccccgggtccactagaaggctagaagacctc 344

>gb|CF050152.1| QCL8d07.yg QCL Zea mays cDNA clone QCL8d07, mRNA sequence  
Length = 702

Score = 48.1 bits (24), Expect = 0.21  
Identities = 54/64 (84%)  
Strand = Plus / Minus

Query: 1115 cgtcctacccaaaagcaccgcaagggtagccctgggtgtgcgacggactctaacacc 1174  
||||||||||||||||| | ||||||| ||| ||||| ||||| ||| | |||||||  
Sbjct: 590 cgtcctacccaaaagcaccctcgaggggtaaccccggtgcgcggtcgggtccaaacacc 531

Query: 1175 gaca 1178  
|||  
Sbjct: 530 gaca 527

>gb|BM322403.1| PIC1\_4\_D07.b1\_A002 Pathogen-infected compatible 1 (PIC1) Sorghum  
bicolor cDNA, mRNA sequence  
Length = 512

Score = 48.1 bits (24), Expect = 0.21  
Identities = 24/24 (100%)  
Strand = Plus / Minus

Query: 1180 ctggcgcgccaggtaggggtgtg 1203  
|||||||||||||||||  
Sbjct: 347 ctggcgcgccaggtaggggtgtg 324

>gb|FL163223.1| 6653349 CERES-CB5 Zea mays cDNA clone 1217524 5', mRNA sequence  
Length = 451

Score = 46.1 bits (23), Expect = 0.83





>gb|FL061059.1| 6665270 CERES-CB6 Zea mays cDNA clone 1229445 5', mRNA sequence  
Length = 463

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Minus

Query: 1168 aaacaccgacagctggcgcgccaggtagggg 1198  
|||| ||||||| ||||||||||||||||||  
Sbjct: 387 aaacgccgacagttggcgcgccaggtagggg 357

>gb|FK991356.1| 5740242 CERES-CB6 Zea mays cDNA clone 1147533 5', mRNA sequence  
Length = 445

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Plus

Query: 1168 aaacaccgacagctggcgcgccaggtagggg 1198  
|||| ||||||| ||||||||||||||||||  
Sbjct: 258 aaacgccgacagttggcgcgccaggtagggg 288

>gb|FK991355.1| 6665245 CERES-CB6 Zea mays cDNA clone 1229420 5', mRNA sequence  
Length = 433

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Plus

Query: 1168 aaacaccgacagctggcgcgccaggtagggg 1198  
|||| ||||||| ||||||||||||||||||  
Sbjct: 258 aaacgccgacagttggcgcgccaggtagggg 288

>gb|FK991354.1| 6660973 CERES-CB6 Zea mays cDNA clone 1225148 5', mRNA sequence  
Length = 443

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Plus



Score = 46.1 bits (23), Expect = 0.83  
Identities = 86/107 (80%)  
Strand = Plus / Plus

Query: 922 atcattttctatcgaccatctacctatctcatcagctttttctccattcaggagacctcgct 981  
||||||| ||||||||| | | ||| ||| ||||| ||| | ||||| || ||  
Sbjct: 2 atcatttccatcgaccatctactcaaccattagcctttcttcatactggagacttctct 61

Query: 982 tgtaaccaccacatatagatccatccaagaagtagtgtattacgc 1028  
||||||| | || ||| ||||||| ||| ||||||| || |||||  
Sbjct: 62 tgtaacctaacatataaagatccacaccaggaagtaggtgttacgc 108

>gb|EG094444.1| MSAM117322\_1237\_2624 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 109

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Plus

Query: 364 agtttaaactagcggattatatagtggtata 394  
||||||| | ||||||||| |||||  
Sbjct: 52 agtttaaactggtggattatatagtggtata 82

>gb|EG105069.1| MSAM177973\_0587\_0066 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 128

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Plus

Query: 364 agtttaaactagcggattatatagtggtata 394  
||||||| | ||||||||| |||||  
Sbjct: 11 agtttaaactggtggattatatagtggtata 41

>gb|EY958855.1| Contag\_8428 Maize ovary - Eveland 2007 Zea mays cDNA, mRNA sequence  
Length = 110

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)

Strand = Plus / Plus

Query: 364 agtttaaactagcggattatatagtggtata 394  
          |||||          |          |||||  
Sbjct: 28  agtttaaactggtgattatatagtggtata 58

>gb|DW984436.1| MSAM361482\_2399\_0555 LCM-dissected maize shoot apical meristem cDNA  
      Zea mays cDNA, mRNA sequence  
      Length = 145

Score = 46.1 bits (23), Expect = 0.83  
Identities = 47/55 (85%)  
Strand = Plus / Minus

Query: 1125 aaaagcaccgcaagggtagccctgggtgtgcgacggactctaacaccgacag 1179  
          |||||          |          |||||          |||          |||          |          |||||  
Sbjct: 124  aaaagcacctcgaggggcaaccctgggtgcgcggtcggacccaaaacaccgacag 70

>gb|DW968659.1| MSAM278959\_3123\_2208 LCM-dissected maize shoot apical meristem cDNA  
      Zea mays cDNA, mRNA sequence  
      Length = 132

Score = 46.1 bits (23), Expect = 0.83  
Identities = 30/31 (96%), Gaps = 1/31 (3%)  
Strand = Plus / Minus

Query: 563 tgtgggggatagatat-ccccgggtccacta 592  
          |||||          |||||          |||||  
Sbjct: 46  tgtgggggatagatatccccgggtccacta 16

>gb|DW964403.1| MSAM268770\_3379\_3722 LCM-dissected maize shoot apical meristem cDNA  
      Zea mays cDNA, mRNA sequence  
      Length = 120

Score = 46.1 bits (23), Expect = 0.83  
Identities = 26/27 (96%)  
Strand = Plus / Minus

Query: 565 tgggggatagatatccccgggtccact 591  
          |||||          |||||          |||||  
Sbjct: 65  tgggggacagatatccccgggtccact 39



Query: 524 ccctatatattttaaataagggtactgatttaa 554  
          |||||          |||||          |||||          |||||  
Sbjct: 11  ccctatatattttaaataagagtactgatttaa 41

>gb|CX065243.1| PDUts2098D12 Porcine testis cDNA library II Sus scrofa cDNA clone  
PDUts2098D12 5' similar to homologue to emb|AL773562.14|  
Pig DNA sequence from clone XX-649D6, complete sequence,  
mRNA sequence  
Length = 596

Score = 46.1 bits (23), Expect = 0.83  
Identities = 23/23 (100%)  
Strand = Plus / Plus

Query: 402 tagttttattagaacatctccaa 424  
          |||||          |||||          |||||          |||||  
Sbjct: 306 tagttttattagaacatctccaa 328

>gb|DT464708.1| GH\_CHX16C10.r GH\_CHX Gossypium hirsutum cDNA clone GH\_CHX16C10 3',  
mRNA sequence  
Length = 740

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Minus

Query: 1168 aaacaccgacagctggcgcgccaggtagggg 1198  
          ||||  |||||          |||||          |||||          |||||  
Sbjct: 494  aaacgccgacagttggcgcgccaggtagggg 464

>gb|CK701021.1| EST5123 Zea mays sperm cell cDNA library Zea mays cDNA clone  
Zmsp12688 5', mRNA sequence  
Length = 294

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Minus

Query: 1168 aaacaccgacagctggcgcgccaggtagggg 1198  
          ||||  |||||          |||||          |||||          |||||  
Sbjct: 81  aaacgccgacagttggcgcgccaggtagggg 51

>gb|CA236929.1| SCSBFL5015D04.g Saccharum officinarum FL5 Saccharum hybrid cultivar  
(mixed) cDNA clone SCSBFL5015D04 5', mRNA sequence  
Length = 923

Score = 46.1 bits (23), Expect = 0.83  
Identities = 26/27 (96%)  
Strand = Plus / Plus

Query: 1168 aaacaccgacagctggcgcgccaggta 1194  
||||| ||||||||||||||||||||  
Sbjct: 383 aaacatcgacagctggcgcgccaggta 409

>gb|CA236928.1| SCSBFL5015D03.g Saccharum officinarum FL5 Saccharum hybrid cultivar  
(mixed) cDNA clone SCSBFL5015D03 5', mRNA sequence  
Length = 730

Score = 46.1 bits (23), Expect = 0.83  
Identities = 26/27 (96%)  
Strand = Plus / Plus

Query: 1168 aaacaccgacagctggcgcgccaggta 1194  
||||| ||||||||||||||||||||  
Sbjct: 383 aaacatcgacagctggcgcgccaggta 409

>gb|CD439487.1| EL01N0525E01.b Endosperm\_5 Zea mays cDNA, mRNA sequence  
Length = 829

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Plus

Query: 1168 aaacaccgacagctggcgcgccaggtagggg 1198  
|||| ||||||| ||||||||||||||||  
Sbjct: 374 aaacgccgacagttggcgcgccaggtagggg 404

>gb|CD437461.1| EL01N0501C03.b Endosperm\_5 Zea mays cDNA, mRNA sequence  
Length = 727

Score = 46.1 bits (23), Expect = 0.83  
Identities = 29/31 (93%)  
Strand = Plus / Plus



Length = 317

Score = 44.1 bits (22), Expect = 3.3  
Identities = 25/26 (96%)  
Strand = Plus / Minus

Query: 1173 cgcacagctggcgccaggtagggg 1198  
          ||||||| |||||||||||||||||  
Sbjct: 32  cgcacagttggcgccaggtagggg 7

>gb|FL151333.1| 1045133 CERES-197 Zea mays cDNA clone 219978 5', mRNA sequence  
          Length = 459

Score = 44.1 bits (22), Expect = 3.3  
Identities = 22/22 (100%)  
Strand = Plus / Plus

Query: 55 gaggaaggggaggatcgatgg 76  
          |||||||||||||||||||  
Sbjct: 60 gaggaaggggaggatcgatgg 81

>emb|CU909173.1| CU909173 Mycelium grown for 48h Podospora anserina cDNA clone  
          HHOAC19CB02., mRNA sequence  
          Length = 1279

Score = 44.1 bits (22), Expect = 3.3  
Identities = 22/22 (100%)  
Strand = Plus / Minus

Query: 1813 gaagctttagaagtaggaaaaa 1834  
          |||||||||||||||||||  
Sbjct: 36  gaagctttagaagtaggaaaaa 15

>gb|EY886124.1| LT33-C1-003-014-F05-CT.F Tahiti lime leaf, greenhouse plant Citrus  
          latifolia cDNA, mRNA sequence  
          Length = 952

Score = 44.1 bits (22), Expect = 3.3  
Identities = 22/22 (100%)  
Strand = Plus / Plus

Query: 337 gtgatttttgtgggtgggttt 358

|||||  
Sbjct: 213 gtgatttttgttgggtgggttt 234

>gb|EG051807.1| MSAM012067\_0152\_2204 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 97

Score = 44.1 bits (22), Expect = 3.3  
Identities = 52/62 (83%)  
Strand = Plus / Minus

Query: 266 tcgattttgatggtatgttaaatttgtgtgtcatttgtttgatggatttagtaaaggta 325  
|||||  
Sbjct: 88 tcgattttgatggtgtgataatttgggtggaattcgtttggtggatttagtagagatta 29

Query: 326 tg 327  
||  
Sbjct: 28 tg 27

>gb|EG159291.1| MSAM286380\_0721\_2171 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 116

Score = 44.1 bits (22), Expect = 3.3  
Identities = 56/66 (84%), Gaps = 1/66 (1%)  
Strand = Plus / Plus

Query: 1069 tctctcgtgcgtccagcacgaaccattgagttacaatcaacagcaccgtcctac-ccaaa 1127  
|||||  
Sbjct: 2 tctctcgtgcatctagcacgaaccatcgagctacagtcggtaacaccgtcctactccaaa 61

Query: 1128 agcacc 1133  
|||||  
Sbjct: 62 agcacc 67

>gb|EG287683.1| MSAM217260\_2824\_1862 LCM-dissected maize inbred line Mo17 shoot  
apical meristem cDNA Zea mays cDNA, mRNA sequence  
Length = 91

Score = 44.1 bits (22), Expect = 3.3  
Identities = 32/34 (94%), Gaps = 1/34 (2%)  
Strand = Plus / Minus

Query: 579 ccccggtccactagaagg-cgagaaggcctcgc 611  
          |||||  
Sbjct: 43 ccccggtccactagaaggtctagaaggcctcgc 10

>gb|EG059501.1| MSAM084114\_1654\_1108 LCM-dissected maize inbred line Mo17 shoot  
      apical meristem cDNA Zea mays cDNA, mRNA sequence  
      Length = 110

Score = 44.1 bits (22), Expect = 3.3  
Identities = 25/26 (96%)  
Strand = Plus / Plus

Query: 563 tgtgggggatagatatccccgggtcc 588  
          |||||  
Sbjct: 39 tgtggtggatagatatccccgggtcc 64

>gb|EG092520.1| MSAM113605\_0184\_3136 LCM-dissected maize inbred line Mo17 shoot  
      apical meristem cDNA Zea mays cDNA, mRNA sequence  
      Length = 118

Score = 44.1 bits (22), Expect = 3.3  
Identities = 32/34 (94%), Gaps = 1/34 (2%)  
Strand = Plus / Minus

Query: 563 tgtgggggatagatatcccc-gggtccactagaa 595  
          |||||  
Sbjct: 46 tgtgggggacagatatccccgggtccactagaa 13

>gb|EG169589.1| MSAM269985\_1792\_2076 LCM-dissected maize inbred line Mo17 shoot  
      apical meristem cDNA Zea mays cDNA, mRNA sequence  
      Length = 117

Score = 44.1 bits (22), Expect = 3.3  
Identities = 46/54 (85%)  
Strand = Plus / Plus

Query: 1125 aaaagcaccgcaaggggtagccctgggtgtgcgagcggactctaaacaccgaca 1178  
          |||||  
Sbjct: 5 aaaagcacctcgaggggcaaccctgggtgcgcggtcggacccaaacaccgaca 58

>gb|EY264291.1| BF01030A1B12.f1 Normalized subtracted keck library BF01 Danaus  
plexippus cDNA clone BF01030A1B12.f1 5, mRNA sequence  
Length = 636

Score = 44.1 bits (22), Expect = 3.3  
Identities = 22/22 (100%)  
Strand = Plus / Plus

Query: 500 ttggaacagtttttaaagtgg 521  
|||||  
Sbjct: 374 ttggaacagtttttaaagtgg 395

>gb|EY259966.1| BF01003X1G03.f1 Normalized subtracted keck library BF01 Danaus  
plexippus cDNA clone BF01003X1G03.f1 5, mRNA sequence  
Length = 753

Score = 44.1 bits (22), Expect = 3.3  
Identities = 22/22 (100%)  
Strand = Plus / Plus

Query: 500 ttggaacagtttttaaagtgg 521  
|||||  
Sbjct: 270 ttggaacagtttttaaagtgg 291

>gb|EY259488.1| BF01025A1E10.f1 Normalized subtracted keck library BF01 Danaus  
plexippus cDNA clone BF01025A1E10.f1 5, mRNA sequence  
Length = 766

Score = 44.1 bits (22), Expect = 3.3  
Identities = 22/22 (100%)  
Strand = Plus / Plus

Query: 500 ttggaacagtttttaaagtgg 521  
|||||  
Sbjct: 387 ttggaacagtttttaaagtgg 408

>gb|EE047687.2| ZM\_BFc0120J17.f ZM\_BFc Zea mays cDNA clone ZM\_BFc0120J17 3', mRNA  
sequence  
Length = 462

Score = 44.1 bits (22), Expect = 3.3  
Identities = 29/30 (96%), Gaps = 1/30 (3%)  
Strand = Plus / Minus

Query: 563 tgtgggggatagatatcccc-gggtccact 591  
|||||  
Sbjct: 30 tgtgggggatagatatcccctgggtccact 1

>emb|AM581222.1| AM581222 RZPD MPMGp1173 Paracentrotus lividus GASPLU Paracentrotus  
lividus cDNA clone MPMGp1173F0730Q 5', mRNA sequence  
Length = 814

Score = 44.1 bits (22), Expect = 3.3  
Identities = 22/22 (100%)  
Strand = Plus / Plus

Query: 47 tggaaggggaggggaaggggagg 68  
|||||  
Sbjct: 779 tggaaggggaggggaaggggagg 800

>gb|DW939742.1| MSAM211340\_3186\_3768 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 94

Score = 44.1 bits (22), Expect = 3.3  
Identities = 25/26 (96%)  
Strand = Plus / Plus

Query: 1271 tgttttgctttggaaccatctcatcc 1296  
||||  
Sbjct: 65 tgttctgctttggaaccatctcatcc 90

>gb|DW897577.1| MSAM116936\_3007\_3914 LCM-dissected maize shoot apical meristem cDNA  
Zea mays cDNA, mRNA sequence  
Length = 107

Score = 44.1 bits (22), Expect = 3.3  
Identities = 25/26 (96%)  
Strand = Plus / Minus

Query: 563 tgtgggggatagatatccccgggtcc 588  
|||||  
Sbjct: 61 tgtgggcgatagatatccccgggtcc 36

>gb|EC102699.1| ACE00018328 1:1 combination of non-normalized and normalized-small  
libraries Acanthamoeba castellanii cDNA, mRNA sequence  
Length = 503

Score = 44.1 bits (22), Expect = 3.3  
Identities = 22/22 (100%)  
Strand = Plus / Plus

Query: 1898 aggaccgagaacgagagcaagc 1919  
|||||  
Sbjct: 417 aggaccgagaacgagagcaagc 438

>gb|CA070197.1| SCSGAD1007H06.b AD1 Saccharum hybrid cultivar SP70-1143 cDNA clone  
SCSGAD1007H06 3', mRNA sequence  
Length = 552

Score = 44.1 bits (22), Expect = 3.3  
Identities = 25/26 (96%)  
Strand = Plus / Plus

Query: 1173 ccgacagctggcgccaggtagggg 1198  
|||||  
Sbjct: 211 ccgacagttggcgccaggtagggg 236

>gb|CF041009.1| QCI20f01.yg QCI Zea mays cDNA clone QCI20f01, mRNA sequence  
Length = 526

Score = 44.1 bits (22), Expect = 3.3  
Identities = 28/30 (93%)  
Strand = Plus / Plus

Query: 526 ctatattttaaaatagggtactgatttaa 555  
|||||  
Sbjct: 289 ctatattttaaggtagggtactgatttaa 318

>gb|BF706840.1| 281486 MARC 3BOV Bos taurus cDNA 5', mRNA sequence  
Length = 473

Score = 44.1 bits (22), Expect = 3.3  
Identities = 25/26 (96%)  
Strand = Plus / Minus

Query: 44 ggggtggaaggggaggggaaggggagga 69  
          ||||| | ||||| ||||| ||||| |||||  
Sbjct: 473 ggggtgggaggggaggggaaggggagga 448

Database: /usr/local/blast/db/blastlibs/est\_others  
Posted date: May 6, 2010 12:23 AM  
Number of letters in database: 29,661,423,624  
Number of sequences in database: 52,386,385

Lambda	K	H
1.37	0.711	1.31

Gapped

Lambda	K	H
1.37	0.711	1.31

Matrix: blastn matrix:1 -3  
Gap Penalties: Existence: 5, Extension: 2  
Number of Sequences: 52386385  
Number of Hits to DB: 550,565,342  
Number of extensions: 28480189  
Number of successful extensions: 7712874  
Number of sequences better than 10.0: 129  
Number of HSP's gapped: 7712864  
Number of HSP's successfully gapped: 138  
Length of query: 2212  
Length of database: 29,661,423,624  
Length adjustment: 24  
Effective length of query: 2188  
Effective length of database: 28,404,150,384  
Effective search space: 62148281040192  
Effective search space used: 62148281040192  
X1: 11 (21.8 bits)  
X2: 15 (29.7 bits)  
X3: 50 (99.1 bits)  
S1: 12 (24.3 bits)  
S2: 22 (44.1 bits)