

**Supplemental Table 2 Detailed annotations of the 125 O**

Name	Acc. No (TIGR)
OsWAK1*	2861.t00006
OsWAK2*	2861.t00011
OsWAK3*	4748.t00012
	(4986.t00013)
OsWAK4*	4748.t00014
OsWAK5	2768.t00008 (fused gene)
OsWAK6	2768.t00013
<i>OsWAK7#(merged to OsWAK8)</i>	<i>2768.t00019</i>
OsWAK7/8	2768.t00020
OsWAK9*	2768.t00022
OsWAK10*	2884.t00031
OsWAK11	3783.t00017
OsWAK12*	4362.t00002
OsWAK13	4362.t00004
OsWAK14	2541.t00004
OsWAK15	2541.t00005
OsWAK16	2541.t00008
OsWAK17##	2421.t00020
OsWAK18##	2477.t00020
	(3351.t00001)
OsWAK19##	2477.t00018
OsWAK20	9630.t05379
OsWAK21*	2477.t00014
	(2422.t00016)
OsWAK22	2477.t00012
	(2422.t00014)
OsWAK23##	2477.t00010
	(2422.t00012)
OsWAK24	4897.t00005
OsWAK25	9631.t01093
OsWAK26	4613.t00011
OsWAK27	9631.t04035
OsWAK28	9631.t05834
OsWAK29	9632.t00287
<i>OsWAK30# (merged into OsWak31)</i>	<i>8332.t00008</i>
OsWAK30/31#	8332.t00009
OsWAK32	9632.t02240
OsWAK34	8323.t00010
OsWAK33#	8323.t00013
OsWAK35##	9632.t02248
OsWAK36	5112.t00008
OsWAK37##	9632.t02778
OsWAK38	9632.t02788
OsWAK39	9632.t02794
OsWAK40#	9632.t02799
OsWAK41#	4577.t00022(8273.t00022)
OsWAK42	4577.t00017(8273.t00001)
OsWAK43	4577.t00014(8273.t00004)
OsWAK44	9632.t02820
OsWAK45	9632.t02822
OsWAK46	8278.t00007(4556.t00017)
OsWAK47	9632.t02847

OsWAK48#	9632.t02849
OsWAK49*	5443.t00017
OsWAK50	8142.t00001(5491.t00001
OsWAK51	9632.t04098
OsWAK52##	9632.t04787
OsWAK53	9632.t04791
OsWAK54##	5380.t00019(2960.t00002
OsWAK55	5380.t00020
OsWAK56	2968.t00014
OsWAK57/58	4374.t00003
<i>OsWAK58# (merged to OsWAK57)</i>	<i>4374.t00004</i>
OsWAK59*	4374.t00007
OsWAK60	4374.t00015
OsWAK61	3015.t00018
OsWAK62##	3009.t00005
OsWAK63	3009.t00012
OsWAK64	9634.t04636
OsWAK65	9634.t04645
OsWAK66**	9635.t00670
OsWAK67##	3459.t00011
OsWAK68**	3459.t00009
OsWAK69*	2123.t00006
OsWAK70*	2123.t00010
OsWAK71*	2123.t00013
OsWAK72*	2123.t00019
OsWAK73	9636.t03851(fused gene)
OsWAK74	9636.t03854
OsWAK75	9636.t03855
OsWAK76*	9636.t03857
OsWAK77*	3081.t00013
OsWAK78#	3081.t00017
OsWAK79	5662.t00009
OsWAK80	9637.t02571
OsWAK81*	9637.t01754
OsWAK82*	9637.t02574
OsWAK83**	9637.t02576
OsWAK84#	9637.t02578
OsWAK85*	9637.t02580
OsWAK86**	9637.t01417
OsWAK87	9637.t02672
OsWAK88**	4967.t00009
OsWAK89a	nd
OsWAK89b	9637.t03234 (fused gene)
OsWAK90	4967.t00013
OsWAK91	4967.t00014
OsWAK92	9637.t03242
OsWAK93*	nd
OsWAK94#	nd
OsWAK95	3135.t00009
<i>OsWAK96# (merged to OsWAK97)</i>	<i>3135.t00011</i>
OsWAK96/97	3135.t00012

OsWAK98*	3135.t00019
OsWAK99	3164.t00008
OsWAK100*	3830.t00015
	(gi 16519460)
OsWAK101##	3178.t00010
OsWAK102*	3178.t00025
OsWAK103	3970.t00002
	(3163.t00024)
OsWAK104	3970.t00008
OsWAK105	3970.t00013
OsWAK106	gi 19881772
OsWAK107#	gi 22711562
OsWAK108	gi 19881780
<i>OsWAK109# (merged to OsWAK110)</i>	<i>3650.t00008</i>
OsWAK109/110	3650.t00009
OsWAK111	9638.t00862
OsWAK112	3738.t00007
OsWAK113#	3170.t00013
OsWAK114*	3170.t00015
OsWAK115#	3580.t00004
OsWAK116*	7185.t00001(6649.t0001)
OsWAK117*	7185.t00010(6649.t00010)
OsWAK118*	7185.t00014(6649.t00014)
OsWAK119*	7185.t00017(6649.t00017)
OsWAK120	9639.t03169
OsWAK121	9639.t04303
OsWAK122	6324.t00019
OsWAK123	6324.t00020
OsWAK124#	4517.t00012
OsWAK125#	1894.t00003
	(4434.t00002)
OsWAK126	5650.t00002
OsWAK127##	6563.t00001(7234.t00001)
OsWAK128	6563.t00002(7234.t00002)
OsWAK129	6563.t00003(7234.t00003)

**\*OsWAL-RLCK, total=28**

**#OsWAK-RLP, total=13**

**## OsWAK-short gene, total=12**

**\*\*OsWAK-pseudogene, total=5**

**nd=no data**

IsWAKs.

GenBank ID	BAC
P0443D08.10	P0443D08
P0443D08.15	P0443D08
P0551A11.19 (pseudo, mis 5' exon)	P0551A11
	(OJ1116_C07)
P0551A11.27	P0551A11
P0503E05.16	P0503E05
P0503E05.28 (pseudo, mis 5' exon)	P0503E05
<i>P0503E05.38 (-5')</i>	<i>P0503E05</i>
P0503E05.38 (-3')	P0503E05
P0503E05.40 (pseudo, mis 5' exon)	P0503E05
nd	P0519D04
P0501G04.26	P0501G04
nd	P0656G12 (not completed)
nd	P0656G12 (not completed)
OJ1643_A10.5	OJ1643_A10
OJ1643_A10.7	OJ1643_A10
OJ1643_A10.14	OJ1643_A10
OJ1111_E07.2 (1854 - 2854)	OJ1111_E07
OJ1520_C09.2	OJ1520_C09
	(OSJNBa0049O12)
OJ1520_C09.6 (21993..22307)	OJ1520_C09
OJ1520_C09.11	<a href="#">OJ1520_C09</a>
OJ1520_C09.13(46055..48907, stop codon(s) in CDS)	OJ1520_C09
	(OJ1112_G06)
OJ1520_C09.15	OJ1520_C09
	(OJ1112_G06)
OJ1520_C09.19	OJ1520_C09
	(OJ1112_G06)
P0016F11.13	P0016F11
OSJNBa0081P02.15	<a href="#">OSJNBa0081P02</a>
nd	OSJNBa0025B02 (not completed)
nd	<a href="#">OSJNBa0025B02 (not completed)</a>
OSJNBa0075M12.12	<a href="#">OSJNBa0075M12</a>
B1340F09.9	<a href="#">B1340F09</a>
<i>OSJNBa0055H05.4</i>	<i>OSJNBa0055H05</i>
OSJNBa0055H05.5	OSJNBa0055H05
OSJNBa0023J03.15	<a href="#">OSJNBa0023J03</a>
OSJNBb0032D24.8	OSJNBb0032D24
OSJNBb0032D24.11	OSJNBb0032D24
OSJNBa0024J22.12	<a href="#">OSJNBa0024J22</a>
OSJNBa0033H08.8	OSJNBa0033H08
nd	<a href="#">OSJNBa0081G05</a>
OSJNBa0081G05.15	<a href="#">OSJNBa0081G05</a>
nd	<a href="#">OSJNBa0049H08</a>
nd	<a href="#">OSJNBa0049H08</a>
OSJNBa0016N04.2	OSJNBa0016N04
nd	OSJNBa0016N04
OSJNBa0016N04.10	OSJNBa0016N04
OSJNBa0016N04.12	<a href="#">OSJNBa0016N04</a>
OSJNBa0016N04.13	<a href="#">OSJNBa0016N04</a>
OSJNBb0042I07.11	OSJNBb0042I07
OSJNBb0076A22.6	<a href="#">OSJNBb0076A22</a>

OSJNBb0076A22.8	<a href="#">OSJNBb0076A22</a>
OSJNBb0076A22.17	OSJNBb0076A22
nd	OSJNBa0083N12
OSJNBa0073E02.11	<a href="#">OSJNBa0073E02</a>
OSJNBa0093F12.18	<a href="#">OSJNBa0093F12</a>
OSJNBa0093F12.22	<a href="#">OSJNBa0093F12</a>
OSJNBb0059K02.18	OSJNBb0059K02
OSJNBb0059K02.19	OSJNBb0059K02
nd	P0519E07
nd	OJ1480_H01 (not completed)
nd	<i>OJ1480_H01 (not completed)</i>
nd	OJ1480_H01 (not completed)
nd	OJ1480_H01 (not completed)
P0535G04.24	P0535G04
OSJNBa0033B09.26	OSJNBa0033B09
OSJNBa0033B09.36	OSJNBa0033B09
P0018H04.10	<a href="#">P0018H04</a>
P0018H04.26	<a href="#">P0018H04</a>
OSJNBa0050F10.15 (pseudo, stop codon(s) in CDS)	<a href="#">OSJNBa0050F10</a>
P0639B07.28 (pseudo)	P0639B07
P0639B07.28 (pseudo, stop codon(s) in CDS)	P0639B07
nd	OJ2096_F11
	(OJ1058_B11)
nd	OJ2096_F11
(gi 29243363)	(OJ1058_B11)
nd	OJ2096_F11
(gi 22202753)	(P0038F10)
nd	OJ2096_F11
(gi 22202747)	(P0038F10)
OJ1345_D02.11	<a href="#">OJ1345_D02</a>
OJ1345_D02.15	<a href="#">OJ1345_D02</a>
OJ1345_D02.17	<a href="#">OJ1345_D02</a>
OJ1345_D02.20 (pseudo, stop codon(s))	<a href="#">OJ1345_D02</a>
OJ1484_G09.121	OJ1484_G09
OJ1484_G09.127	OJ1484_G09
nd	P0684H11 (not completed)
OJ1118_B06.13 (pseudo, mis 5' exon)	<a href="#">OJ1118_B06</a>
OJ1118_B06.15	OJ1118_B06
OJ1118_B06.17 (pseudo, stop codon(s))	<a href="#">OJ1118_B06</a>
OJ1118_B06.19 (pseudo, frameshift(s))	<a href="#">OJ1118_B06</a>
OJ1118_B06.22(pseudo, stop codon(s))	<a href="#">OJ1118_B06</a>
OJ1118_B06.25	<a href="#">OJ1118_B06</a>
OJ1104_G11.11 (pseudo, stop codon(s))	<a href="#">OJ1104_G11</a>
nd	<a href="#">OJ1011_C06 (not completed)</a>
P0635G10.10 (pseudo, stop codon(s))	P0635G10
P0635G10.14	
P0635G10.15	<a href="#">P0635G10</a>
P0635G10.16	P0635G10
P0635G10.17	P0635G10
P0635G10.28	<a href="#">P0635G10</a>
OSJNBa0096E22.10	OSJNBa0096E22
OSJNBa0096E22.11	OSJNBa0096E22
OSJNBb0012A20.9	OSJNBb0012A20
<i>OSJNBb0012A20.11</i>	<i>OSJNBb0012A20</i>
OSJNBb0012A20.12	OSJNBb0012A20

OSJNBb0012A20.17	OSJNBb0012A20
OSJNBa0023I19.8	OSJNBa0023I19
OSJNAa0029P06.11	OSJNAa0029P06
	(OSJNBa0034A02)
OSJNBa0034A02.10	OSJNBa0034A02
OSJNBa0034A02.20	OSJNBa0034A02
OSJNBa0028C16.1	OSJNBa0028C16
	(OSJNBa0031A07)
OSJNBa0028C16.5	OSJNBa0028C16
OSJNBa0028C16.9	OSJNBa0028C16
OSJNBa0011A24.19	OSJNBa0011A24
OSJNBa0011A24.20	OSJNBa0011A24
OSJNBa0051J07.1(shorter, 226-2295)	OSJNBa0051J07
<i>OSJNBa0051J07.6</i>	<i>OSJNBa0051J07</i>
OSJNBa0051J07.7	OSJNBa0051J07
OSJNBa0047G15.20	<a href="#">OSJNBa0047G15</a>
OSJNBa0095J15.4	OSJNBa0095J15
OSJNBa0093I09.13	OSJNBa0093I09
OSJNBa0093I09.15	OSJNBa0093I09
nd	OSJNBb0083E23 (not completed)
nd	OSJNBb0084M23
nd	OSJNBb0084M23
nd	OSJNBb0084M23
nd	OSJNBb0084M23
nd	<a href="#">OSJNBa0018K14</a>
nd	<a href="#">OSJNBa0004Q15</a>
LOC_Os11g47150	OSJNBa0059H21
LOC_Os11g47140	OSJNBa0059H21
nd	OSJNBb0077C18
nd	OSJNBa0005P03
	(OSJNBa0090O14)
nd	OJ1327_A12
nd	OJ1388_B05
nd	OJ1388_B05
nd	OJ1388_B05

Position on BAC	BAC Acc. No	Chr. No.	Correction from FL-cDNA
29030-19425 (23981-19682)	AP003250	1	cDNA longer (5' extention)
43923-39223	AP003250	1	matched
77487-81898	AP003934	1	
	(AP004253)		
99485-103742 (94340-	AP003934	1	cDNA shorter (cut 5' start, extra intron)
44067-47190 (28886-47190)	AP003021	1	
77193-75021	AP003021	1	
111799-112866	AP003021	1	
111799(115670)-117901	AP003021	1	
124344-122808	AP003021	1	
193004-191559	AP003455	1	(cDNA longer, recoverd the 3' end )
108547-105878	AP004752	2	cDNA matched
20165-17788	AP005070	2	cDNA matched but not protein
30216-27751	AP005070	2	
25753-22627	AP004192	2	
34166-30901	AP004192	2	
52048-48847	AP004192	2	
1854-3733	AP003994	2	
15203-12718	AP004064	2	matched, but not proteins, anti
	(AC069158)		
22648-21993	AP004064	2	
42012-39144	<a href="#">AP004064</a>	2	
48881-44565	AP004064	2	cDNA shorter (3'-end)
	(AP003996)		
63712-60989	AP004064	2	
	(AP003996)		
74709 - 83041 (74719-79628)	AP004064	2	cDNA longer (3' extend, exon missed)
	(AP003996)		
57207-59700	AP005303	2	
100827-105080	<a href="#">AC107226</a>	3	matched
126529-117196	AL732379	3	
82983-78747	<a href="#">AL732379</a>	3	
62180-57804 (61107-57899)	<a href="#">AC096856</a>	3	matched
53321-57380	<a href="#">BX842608</a>	4	matched
28387-34847	<a href="#">AL606601</a>	4	matched
28387 (36556)-40633	AL606601	4	matched
129368-133960	<a href="#">AL731597</a>	4	matched
69376-74582	AL662995	4	
90512-95401	AL662995	4	matched
90137 -91364 (85900-90993)	<a href="#">AL731596</a>	4	cDNA shorer ( 5' start short)
64045-59431	AL662942	4	
75899-80668	<a href="#">AL662983</a>	4	matched
162320-158764	<a href="#">AL662983</a>	4	
110041-104375	<a href="#">AL663020</a>	4	
139049-134781	<a href="#">AL663020</a>	4	
25499-22922	AL731587	4	
57162-52968	AL731587	4	
84068-81422	AL731587	4	
98483-95065	<a href="#">AL731587</a>	4	
116721-113211	<a href="#">AL731587</a>	4	
105778-101749	AL731632	4	cDNA longer (exon missed)
37847-34496	<a href="#">AL663016</a>	4	

57103-51171	<a href="#">AL663016</a>	4	
94477-99188	AL663016	4	
1562-63 (BAC end)	AL606683	4	cDNA longer and recovered the 3' end
79137-75746	<a href="#">AL731616</a>	4	
126286-130997 (126518-1305	<a href="#">AL607004</a>	4	cDNA longer and anti (5' and 3' extend )
153330-150959	<a href="#">AL607004</a>	4	matched
102360-103436	AL606692	4	
109170-112678	AL606692	4	
90068-85952	AC087552	5	
27676(23550)-18839	AC118287	5	
28883-27676(91-1298)	<i>AC118287</i>	5	
43129-46013	AC118287	5	
95940-102715	AC118287	5	
87655-91449	AP000399	6	
93099-92809	AP002864	6	
133724-130826	AP002864	6	
42150-38060	<a href="#">AP003761</a>	6	
102818-97220	<a href="#">AP003761</a>	6	
66670-68825	<a href="#">AP005840</a>	7	
75663-76286	AP004344	7	
82978-85520	AP004344	7	
40250-35292	AP003964	7	cDNA is a Pack-Mule anti, OsWAK after the
	(AP003864)		
57853-56185	AP003964	7	
	(AP003864)		
76209-74449	AP003964	7	
	(AP004266)		
120396-116283 (119010-	AP003964	7	cDNA longer (5' extend )
	(AP004266)		
43613-48894(52058-35363)	<a href="#">AP003892</a>	8	
64449-60887	<a href="#">AP003892</a>	8	
66520-69304	<a href="#">AP003892</a>	8	
74129-79407	<a href="#">AP003892</a>	8	cDNA longer
59862-58825	AP003913	8	
81555-79365	AP003913	8	
147851-151854	AP005427	9	
50203-46104	<a href="#">AP005555</a>	9	
58953-57452 (61603-57621)	AP005555	9	cDNA shorter (5'-end)
67431-64801	<a href="#">AP005555</a>	9	cDNA longer
75558-72891	<a href="#">AP005555</a>	9	
83345-92781 (85776-83616)	<a href="#">AP005555</a>	9	cDNA longer
104145-98899	<a href="#">AP005555</a>	9	matched
36704-33386	<a href="#">AP005091</a>	9	
88281-84606	<a href="#">AP005677</a>	9	cDNA longer
33080-36255	AP005396	9	
43653..46192			
48171..50849	<a href="#">AP005396</a>	9	
52334-55161	AP005396	9	
56434..59421	AP005396	9	matched
89468-92031	<a href="#">AP005396</a>	9	matched
67851-70996	AC099400	10	
78489-80103	AC099400	10	
52624-59233	AC079685	10	
76115-77068	AC079685	10	
76115(78565)-81749	AC079685	10	



105973-111450	AC079685	10	matched
43539-46700	AC079037	10	
68179-68661	AC112513	10	
	(AC079852)		
78800-76602 (74404-78523)	AC079852	10	cDNA shorter and anti
144200-146152	AC079852	10	
9577-14188	AC098565	10	
	(AC084884)		
39237-46086	AC098565	10	
70660-75822	AC098565	10	
113786-116932	AC113336	10	
119419-120907	AC113336	10	
	AC098566	10	
35194-36318	AC098566	10	
35194(39770)-42862	AC098566	10	
98240-104974	<a href="#">AC083944</a>	10	
60487-67045	AC092173	10	cDNA longer
46709-47620	AC090486	10	
61050-62225	AC090486	10	
11963-14153	AC105745	10	
1788-419	AC137753	11	
64018-62015	AC137753	11	matched
78947-78270	AC137753	11	
96403-94418	AC137753	11	
138918-136918	<a href="#">AC120889</a>	11	
24055-17803	<a href="#">AC146937</a>	11	
103897-99596	AC116367	11	
112425-106986	AC116367	11	
62941-59901	AL731874	12	cDNA shorter (3'-end)
11222-12929	AL513002	12	
	(AL731763)		
4758-1914	AL713940	12	
6852-9756	BX000457	12	matched but UTR longer, anti
12461-14450 (11526-14247)	BX000457	12	cDNA shorter (5' start short)
18346-21342	BX000457	12	matched (both sense and anti)

intron (coding region)	Note				
3					
3					
4	(OsWAK-RLCK type gene)				
3					
2					
0	shorter 5' region, but have EGF				
0	(60% to OsWAK5)				
1	(84 % to OsWAK5)				
1	(78% to OsWAK6 )				
0,2,4	(on BAC end, intact gene recovered)				
2					
3					
2					
2					
2					
2					
2					
2	(48% to the end of OsWAK53b)				
0,0	(not to any OsWAK)				
0	(50% to OsWAK22)				
2					
3					
3					
0	(52% to OsWAK21)				
2					
2					
>3					
2					
3					
3					
2	AK058435 (FL-cDNA)				
2	AK058435 (FL-cDNA)				
1					
5					
3					
0	(49% to the end of OsWAK112a)				
4					
1	(very short, not to any OsWAK)				
2					
3					
2	(65% to OsWAK33, EGF)				
2	(40% to OsWAK33, EGF)				
4					
2					
2					
3					
2					
3 (ex)					

4	(61% to OsWAK43, EGF)				
1	(75% to OsWAK43)				
1	(42% To OsWAK53a, EGF)				
2					
0	(very short, to none OsWAK)				
0,2					
0	(35% to OsWAK55, EGF start)				
3					
1					
1	(72% to OsWAK45)				
1	44% to OsWAK45				
2	(48% to OsWAK48)				
4					
3					
0	(92% to the end of OsWAK63)				
3					
2					
4					
3					
	( 68 % to OsWAK105)				
1					
0	(98% to OsWAK94)				
1					
1					
0					
5					
2					
2					
0	OsWAK-RLCK gene (79% to OsWAK74)				
0	(60% to OsWAK20)				
2	(41% to OsWAK20)				
5					
4	missed 5' region recovered				
0	(66% to OsWAK80)				
0	(81% to OsWAK83 )				
4					
2	(51% to OsWAK80, EGF)				
0	(74% to OsWAK80)				
5					
1					
3					
1					
2					
1					
1					
2					
4	(80% to OsWAK105 )				
0	(70% to OsWAK105)				
3					
0	(77% to OsWAK95)				
2	(77% To OsWAK95)				

0	(47% to OsWAK119)				
2					
0	(65% to OsWAK116)				
0	(very short, similar to the end of OsWAK28)				
0	(41% to OsWAK119)				
2					
2					
2					
2	(43% to OsWAK108)				
1	(38% to OsWAK108)				
3					
1	37% to OsWAK108				
3	61% to OsWAK108				
3					
1,2,3					
0	(55% to OsWAK105)				
1	(82% to OsWAK105)				
2	(85% to OsWAK78, EGF)				
0					
1					
0					
0					
2					
4					
4					
3					
2	(48% to OsWAK88, EGF)				
2	(42% to OsWAK89, EGF)				
2					
0,2	(very short, but 42 % to OsWAK26)				
0,1					
0,2					

[illegible]

[illegible]

[illegible]