

**Additional file 8: Table S7. Potential functional SOD family genes identified *in silico* in monocot plants.**

Species name	<i>Cu/ZnSOD</i> genes		<i>MnSOD</i> genes		<i>FeSOD</i> genes		Websites for genome sequences downloading <sup>a</sup>
	Locus ID	Total NO.	Locus ID	Total NO.	Locus ID	Total NO.	
<i>Oryza sativa</i> (ssp. japonica)	LOC_Os03g22810	4	LOC_Os05g25850	1	LOC_Os06g02500	2	<a href="http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Osativa">http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Osativa</a>
	LOC_Os07g46990				LOC_Os06g05110		
	LOC_Os08g44770						
	LOC_Os03g11960						
<i>Zea mays</i>	GRMZM2G025992	5	GRMZM2G059991	2	GRMZM5G864424	3	<a href="http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Zmays">http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Zmays</a>
	GRMZM2G058522		GRMZM2G124455		GRMZM2G042080		
	GRMZM2G106928				GRMZM2G173628		
	GRMZM2G169890						
	GRMZM5G891739						
<i>Brachypodium distachyon</i>	Bradi1g18340	3	Bradi2g30580	1	Bradi1g50550	2	<a href="http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Bdistachyon">http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Bdistachyon</a>
	Bradi1g69680				Bradi1g51140		
	Bradi3g43070						
<i>Sorghum bicolor</i>	Sobic.001G371900	4	Sobic.009G093200	1	Sobic.010G012900	2	<a href="http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Sbicolor">http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Sbicolor</a>
	Sobic.007G166600				Sobic.010G033000		
	Sobic.002G407900						
	Sobic.001G453800						
<i>Hordeum vulgare</i>	MLOC_22278	3	MLOC_72880	1	MLOC_69817	2	<a href="http://plants.ensembl.org/Hordeum_vulgare/Info/Index/">http://plants.ensembl.org/Hordeum_vulgare/Info/Index/</a>
	MLOC_38479				MLOC_36735		
	MLOC_17760						
<i>Triticum aestivum</i>	Traes_4AS_8AC85AB54	10	Traes_2AL_D0D84176E	2	Traes_7AS_ECBB6F731	6	<a href="http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org-Taestivum_er">http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org-Taestivum_er</a>
	Traes_4BL_F765C4AA5		Traes_2DL_F48387F4E		Traes_4AL_433F090E0		
	Traes_4DL_08EEED1A6				Traes_7DS_1CE2F67B7		
	Traes_2AS_529825553				Traes_7AS_8400350BF		
	Traes_2BS_6015BC7C6				Traes_4AL_7742FFD9E		

	Traes_2DS_3C3A2A12A				Traes_7DS_B5FBEEE92		
	Traes_7BL_70F07C889						
	Traes_7AL_EAE52A86A						
	Traes_7BL_A42D6C984						
	Traes_7AL_E14A72218						
<i>Setaria italica</i>	Si031388m	4	Si023127m	1	Si038762m	2	<a href="http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Sitalica">http://phytozome.jgi.doe.gov/pz/portal.html#!info?alias=Org_Sitalica</a>
	Si037512m				Si007118m		
	Si014166m						
	Si037598m						
<i>Phalaenopsis equestris</i>	PEQU_04990	5	PEQU_18674	1	PEQU_20491	3	<a href="ftp://ftp.genomics.org.cn/from_BGISZ/20130120/02.annotation/">ftp://ftp.genomics.org.cn/from_BGISZ/20130120/02.annotation/</a>
	PEQU_28621				PEQU_37345		
	PEQU_03550				PEQU_39485		
	PEQU_42061						
	PEQU_00184						

a: All peptide sequences of sequenced monocots were download from the related genome websites, and the *Arabidopsis* and banana *SOD* protein sequences were used as queries to perform local BLASTp searches to identify *SOD* gene members. We then confirmed all the protein sequences by BLASTp searches in the NCBI for the presences of the conserved *SOD* domains. Redundant genes, chimeric genes and genes with a very small *SOD* domain were excluded.