

Supplementary Material to "Can WRKY transcription factors help plants to overcome environmental challenges?"

Table S4 – Transgenic generated lines performed with *WRKY* genes in different plant species in response to biotic and abiotic stresses. Event (Si: silence, OE: overexpression) reaction - their phenotype observed against certain stress (T: Tolerance, R: Resistance, S: Sensitivity or Susceptibility) and the reference source

Species	Event	Gene	Stress	Reaction	Reference
<i>Arabidopsis thaliana</i>	OE	<i>GhWRK Y34</i>	Salt	T	Zhou <i>et al.</i> , 2015
<i>Arabidopsis thaliana</i>	OE	<i>RtWRKY 1</i>	Salt	T	Du <i>et al.</i> , 2017
<i>Arabidopsis thaliana</i>	OE	<i>TaWRKY 1</i>	Heat/Drought	T	He <i>et al.</i> , 2016
<i>Arabidopsis thaliana</i>	OE	<i>TaWRKY 33</i>	Heat/Drought	T	He <i>et al.</i> , 2016
<i>Arabidopsis thaliana</i>	OE	<i>VvWRKY 11</i>	Drought	T	Liu <i>et al.</i> , 2011
<i>Arabidopsis thaliana</i>	OE	<i>CmWRK Y17</i>	Salt	S	Li <i>et al.</i> , 2015
<i>Arabidopsis thaliana</i>	OE	<i>TaWRKY 2</i>	Salt and Drought	T	Niu <i>et al.</i> , 2012
<i>Arabidopsis thaliana</i>	OE	<i>TaWRKY 19</i>	Cold, salt and drought	T	Niu <i>et al.</i> , 2012
<i>Arabidopsis thaliana</i>	OE	<i>HaWRK Y76</i>	Flooding/drought	T	Raineri <i>et al.</i> , 2015
<i>Arabidopsis thaliana</i>	OE	<i>CsWRKY 46</i>	Cold	T	Zhang <i>et al.</i> , 2016
<i>Arabidopsis thaliana</i>	OE	<i>GmWRK Y54</i>	Salt	T	Zhou <i>et al.</i> , 2008
<i>Arabidopsis thaliana</i>	OE	<i>GmWRK Y54</i>	Drought	T	Zhou <i>et al.</i> , 2008
<i>Arabidopsis thaliana</i>	OE	<i>GmWRK Y21</i>	Cold	T	Zhou <i>et al.</i> , 2008
<i>Arabidopsis thaliana</i>	OE	<i>GmWRK Y21</i>	Cold	T	Zhou <i>et al.</i> , 2008
<i>Arabidopsis thaliana</i>	OE	<i>GmWRK Y54</i>	Salt/Drought	T	Zhou <i>et al.</i> , 2008
<i>Arabidopsis thaliana</i>	OE	<i>GhWRK Y34</i>	Salt	T	Zhou <i>et al.</i> , 2015
<i>Arabidopsis thaliana</i>	OE	<i>GmWRK Y13</i>	Salt/Drought	S	Zhou <i>et al.</i> , 2008
<i>Arabidopsis thaliana</i>	OE	<i>PtrWRK Y89</i>	<i>Botrytis cinerea</i>	S	Jiang <i>et al.</i> , 2016
<i>Arabidopsis thaliana</i>	OE	<i>PtrWRK Y73</i>	<i>Botrytis cinerea/Pseudomonas syringae pv</i>	S/R	Duan <i>et al.</i> , 2015
<i>Arabidopsis thaliana</i>	OE	<i>FaWRKY 1</i>	<i>Pseudomonas syringae</i>	R	Encinas-Villarejo <i>et al.</i> , 2009
<i>Arabidopsis thaliana</i>	OE	<i>OsWRKY 23</i>	<i>Pseudomonas syringae</i>	R	Shaojuan <i>et al.</i> , 2009
<i>Arabidopsis thaliana</i>	OE	<i>OsWRKY 6</i>	<i>Xanthomonas oryzae pv. oryzae</i>	R	Hwang <i>et al.</i> , 2011
<i>Arabidopsis thaliana</i>	OE	<i>VqWRKY 52</i>	<i>Pseudomonas syringae</i>	R	Wang <i>et al.</i> , 2017
<i>Arabidopsis thaliana</i>	OE	<i>VqWRKY 52</i>	<i>Botrytis cinerea</i>	S	Wang <i>et al.</i> , 2017
<i>Arabidopsis thaliana</i>	OE	<i>OsWRKY 23</i>	<i>Pyricularia oryzae Cav</i>	R	Shaojuan <i>et al.</i> , 2009

Species	Event	Gene	Stress	Reaction	Reference
<i>Arabidopsis thaliana</i>	OE	<i>OsWRKY23</i>	<i>Pseudomonas syringae</i>	R	Shaojuan <i>et al.</i> , 2009
<i>Arabidopsis thaliana</i>	OE	<i>VpWRKY1</i>	<i>Erysiphe cichoracearum</i> /Salt	R/T	Li H <i>et al.</i> , 2010
<i>Arabidopsis thaliana</i>	OE	<i>VpWRKY2</i>	<i>Erysiphe cichoracearum</i> /Salt and Cold	R/T	Li H <i>et al.</i> , 2010
<i>Arabidopsis thaliana</i>	OE	<i>OsWRKY45</i>	<i>Pseudomonas syringae</i> tomato / Salt and drought	R /T	Qiu and Yu, 2009
<i>Capsicum annuum</i>	Si	<i>CaWRKY58</i>	<i>Ralstonia solanacearum</i>	S	Wang <i>et al.</i> , 2012
<i>Gossypium hirsutum</i>	Si	<i>GhWRKY27a</i>	drought	T	Yan <i>et al.</i> , 2015
<i>Gossypium hirsutum</i>	Si	<i>GhWRKY27</i>	Drought	T	Yan <i>et al.</i> , 2015
<i>Nicotiana benthamiana</i>	OE	<i>GhWRKY17</i>	Drought/Salt	S	Yan <i>et al.</i> , 2014
<i>Nicotiana benthamiana</i>	OE	<i>GhWRKY41</i>	Drought/Salt	T	Chu <i>et al.</i> , 2015
<i>Nicotiana benthamiana</i>	OE	<i>GhWRKY25</i>	Drought/Salt	S/T	Liu <i>et al.</i> , 2015
<i>Nicotiana benthamiana</i>	OE	<i>GhWRKY44</i>	<i>Ralstonia solanacearum</i> /Rhizoctonia solani	R/R	Li <i>et al.</i> , 2014
<i>Nicotiana benthamiana</i>	OE	<i>GhWRKY27</i>	<i>Rhizoctonia solani</i> /Drought	S/S	Yan <i>et al.</i> , 2015
<i>Nicotiana benthamiana</i> and <i>Nicotiana tabacum</i>	OE	<i>BhWRKY1</i>	Drought	T	Wang <i>et al.</i> , 2009
<i>Nicotiana sp.</i>	OE	<i>GmWRKY57B</i>	Drought	T	Zhang <i>et al.</i> , 2008
<i>Nicotiana sp.</i>	OE	<i>MdWRKY1</i>	<i>Phytophthora parasitica</i> var. <i>nicotianae</i>	R	Fan <i>et al.</i> , 2011
<i>Nicotiana tabacum</i>	OE	<i>SlWRKY</i>	Salt/Drought	T	Li <i>et al.</i> , 2012
<i>Nicotiana tabacum</i>	OE	<i>BcWRKY46</i>	Cold, salinity and Drought	T	Niu <i>et al.</i> , 2012
<i>Nicotiana tabacum</i>	OE	<i>TaWRKY1</i>	Drought	T	Ding <i>et al.</i> , 2016
<i>Nicotiana tabacum</i>	OE	<i>VpWRKY3</i>	<i>Ralstonia solanacearum</i> /Salt	R/T	Zhu <i>et al.</i> , 2012
<i>Populus tomentosa</i>	OE	<i>PtrWRKY89</i>	<i>Dothiorella gregaria</i>	R	Jiang <i>et al.</i> , 2014

At - *Arabidopsis thaliana*, Bc - *Brassica campestris* ssp. *chinensis*, Bh - *Boea hygrometrica*, Ca - *Capsicum annuum*, Cm - *Chrysanthemum*, Cs - *Cucurbita* ssp., Fa - *Fragaria x ananassa*, Gh - *Gossypium hirsutum*, Gm - *Glycine max*, Ha - *Helianthus annuus*, Md - *Malus domestica*, Nb - *Nicotiana benthamiana*, Os - *Oryza sativa*, Ptr - *Populus trichocarpa*, Rt - *Reaumuria trigyna*, Sl - *Solanum lycopersicum*, Ta - *Triticum aestivum*, Vp - *Vitis pseudoreticulata*, Vq - *Vitis quinquangularis*, Vv - *Vitis vinifera*.

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