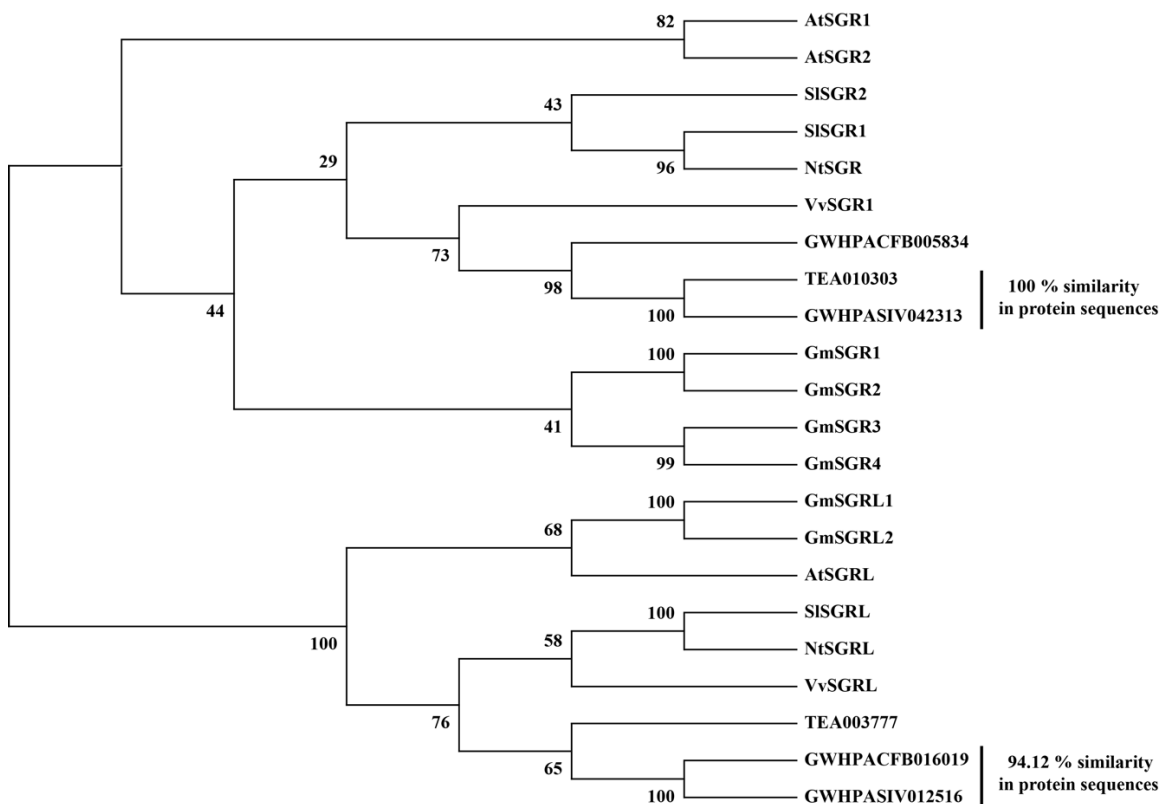




Supplementary Figure S1. Phylogenetic analysis of the tea putative CsSGRs with SGRs of other species.



Supplementary materials

Supplementary Table S1. Primers used for the cloning of *CsSGR1*, *CsSGR2* and *CsSGRL*.

Primers name	Primer sequence (5'-3')	Note
CsSGR1-F	ATGGGTACTCTGACCACTTCTCTTG	Primers used for the cloning of <i>CsSGR1</i> , <i>CsSGR2</i> and <i>CsSGRL</i>
CsSGR1-R	TTGACCCCACCAGAAGGAGC	
CsSGR2-F	GTGTCCTGAGAAGTTGGAGCTTG	
CsSGR2-R	CACATCCCAGAAAGGCAGACAAG	
CsSGRL-F	TGTTGGTTGGGTGGAAGTGG	
CsSGRL-R	GGAGCTTACCAGTTTGCCCT	
CsSGR1-qF	ACTTCTCTTGTGCTTCCATCAGG	Primers used for RT-qPCR
CsSGR1-qR	AAATATAGCTGGCCCAAATAACC	
CsSGR2-qF	GAGTGAAGAAAGTCCAGGAGA	
CsSGR2-qR	ACCCAAACCAGAGCTTCCTC	
CsSGRL-qF	GACCTACACCCTCTCCCACT	
CsSGRL-qR	TCCTTCCACTCAGCAACGAC	
CsPTB-F	ACCAAGCACACTCCACACTATCG	Primers used for the construction of subcellular localization vectors
CsPTB-R	TGCCCCCTTATCATCATCCACAA	
p35S::CsSGR1-F	<u>cgagctcgggtaccg</u> gggatccATGGGTACTCTGACCACTTCTCTTG	
p35S::CsSGR1-R	<u>ccttgctcaccatggtgtcgac</u> TTGACCCCACCAGAAGGAGC	
p35S::CsSGR2-F	<u>cgagctcgggtaccg</u> gggatccATGGGTACTTTGACTGCTTCTCTTG	
p35S::CsSGR2-R	<u>ccttgctcaccatggtgtcgac</u> ATCATAGAGTTGTGTAAGACCATCTTTG	
p35S::CsSGRL-F	<u>cgagctcgggtaccg</u> gggatccATGCATTCCATGGCCTGTCATTC	

Note: Underlined lowercase letters indicate homologous sequences with the vectors.

Supplementary Table S2. The six candidate CsSGR homologs obtained for tea genome via bioinformatic analysis.

Gene ID	Reference genome
>GWHTACFB005834	'Longjing 43' genome
>GWHTACFB016019	
>TEA010303	'Shuchazao' genome
>TEA003777	
>GWHTASIV012516	'Tieguanyin' genome
>GWHTASIV042313	

Supplementary Table S3. The numbers of *cis*-elements in promoters of *CsSGR1*, *CsSGR2* and *CsSGRL*.

Genes	Cis-elements	Numbers
<i>CsSGR1</i>	Light responsive element	2
	Auxin-response element	1
	Salicylic acid responsive element	2
	MeJA-responsive element	2
	Gibberellin-responsive element	1
	Anaerobic induction element	1
	Low-temperature responsive element	2
	Defense and stress responsive element	1
<i>CsSGR2</i>	Light responsive element	1
	Absciscic acid responsive element	1
	Gibberellin-responsive element	6
	Anoxic specific inducibility element	1
<i>CsSGRL</i>	Light responsive element	5
	MeJA-responsive element	2
	Absciscic acid responsive element	2
	Defense and stress responsive element	1