Supplementary Material

A Cytosolic Protein Kinase STY46 in *Arabidopsis thaliana* is Involved in Plant Growth and Abiotic Stress Response

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**Table S1.** Primer sequences for T-DNA verification.

**Table S2.** Primer sequences and PCR product used for STY46 cloning.

**Table S3.** Primers used for quantitative RT-PCR.

**Table 1.** Primer sequences for T-DNA verification.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PCR Product** | **Germplasm Name** | **LP Primer Sequence (5’-3’)** | **RP Primer Sequence (5’-3’)** | **BP Primer Sequence (5’-3’)** |
| PCR amplification for T-DNA verification | SALK\_112195C  (*sty46-1*) | TTGGCTATCTCTTGAAGCTGC | AAGCAAAAGGGCGTCTTTAAG | ATTTTGCCGATTTCGGAAC |
| PCR amplification for T-DNA verification | SALK\_116340  (*sty46-2*) | GTCTGCAACCTTAACCACCTG | CAATCCTTCTCTCCGGAAAAG | ATTTTGCCGATTTCGGAAC |

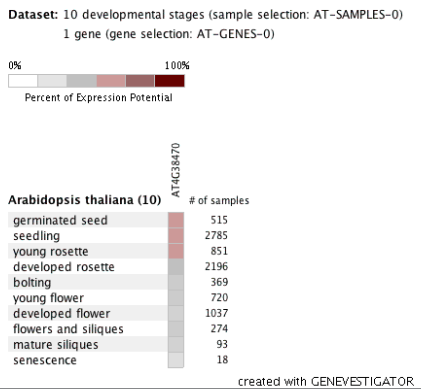
**Table 2.** Primer sequences and PCR product used for STY46 cloning.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PCR Product** | **Accession ID** | **Forward Primer Sequence (5’-3’)** | **Reverse Primer Sequence (5’-3’)** | **Fragment Length (bp)** |
| Fragment for constitutive overexpressing construct | NM\_120008.2 | CGCGGATCCATGGTGATGGAGGACAACGAGAGT (*BamH*I site underlined) | AAAACTGCAGCTA***CAGATCTTCTTCAGAAATAAGTTTTTGTTC*** ATGATGTGTGGTGCTTCTCCTC (*PstI site* underlined, myc tag bolded) | 1,777 |

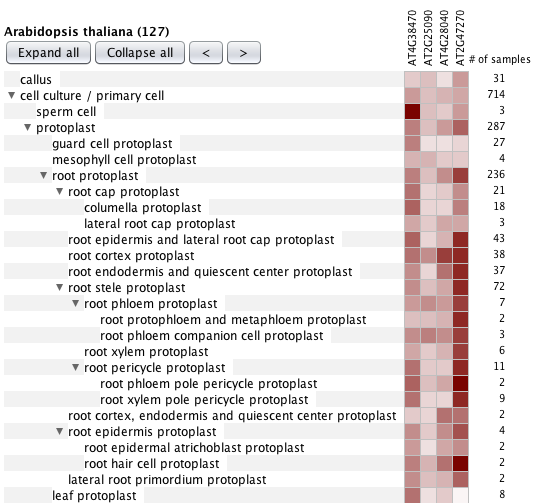
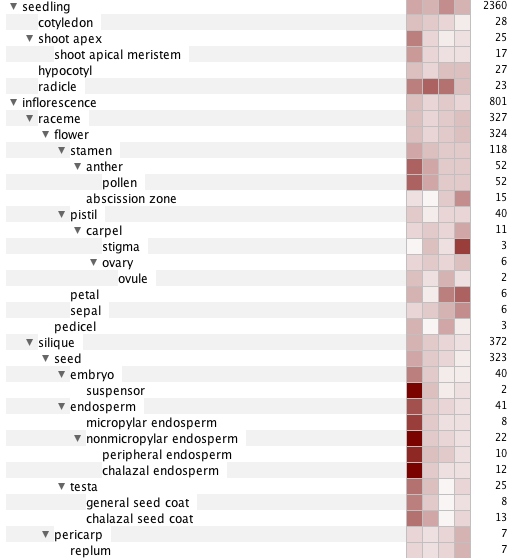
**Table 3.** Primers used for quantitative RT-PCR.

|  |  |  |
| --- | --- | --- |
| **qRT-PCR amplification product** | **Forward primer sequence (5’-3’)** | **Reverse primer sequence (5’-3’)** |
| *STY46* | NM\_001342499.1: 1627-1646 bp  AGGTTGCAGACTTTGGGGTG | NM\_001342499.1: 2052-2073 bp  TCCCTCTTCTCCTACCTCCTTG |
| *Actin2* | GGTGATGGTGTGTCT | ACTGAGCACAATGTTAC |

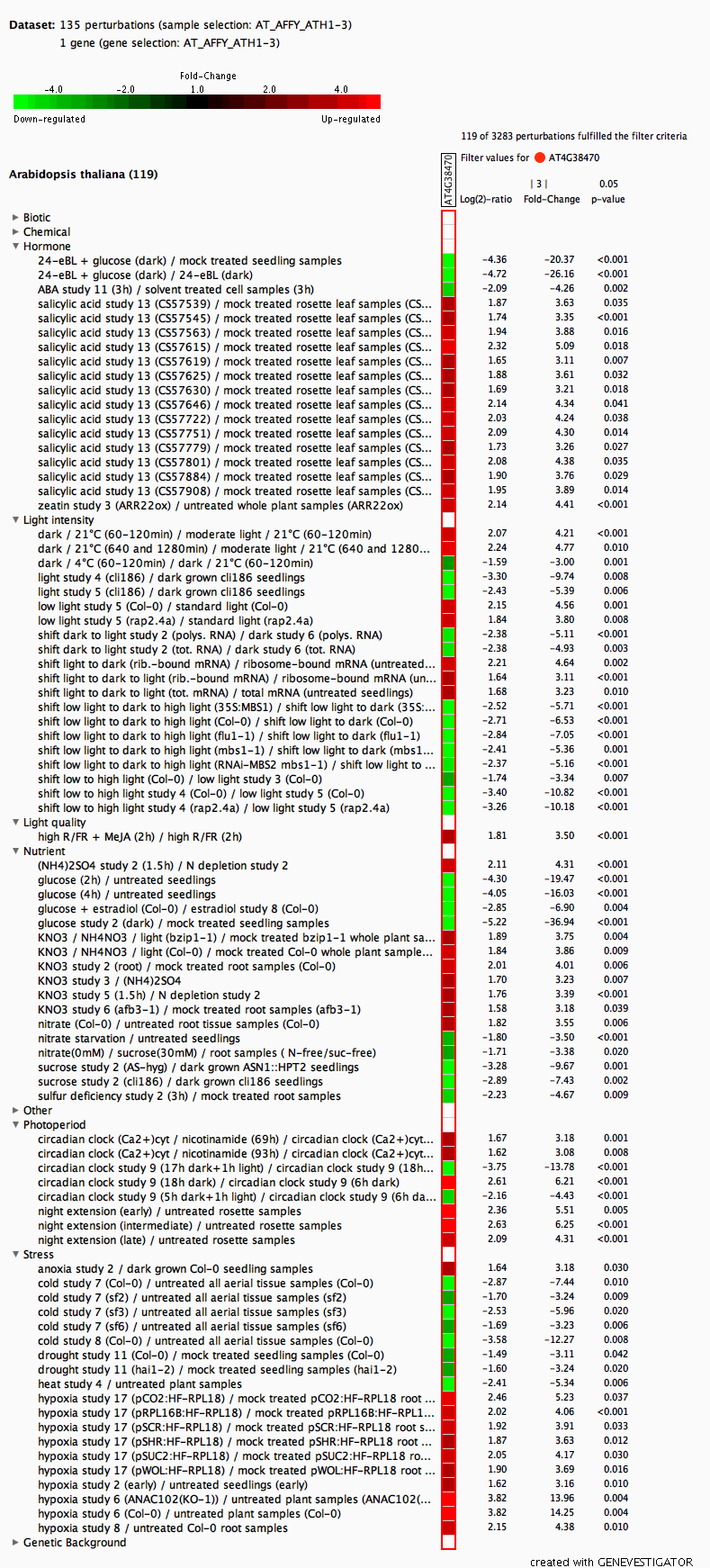
A

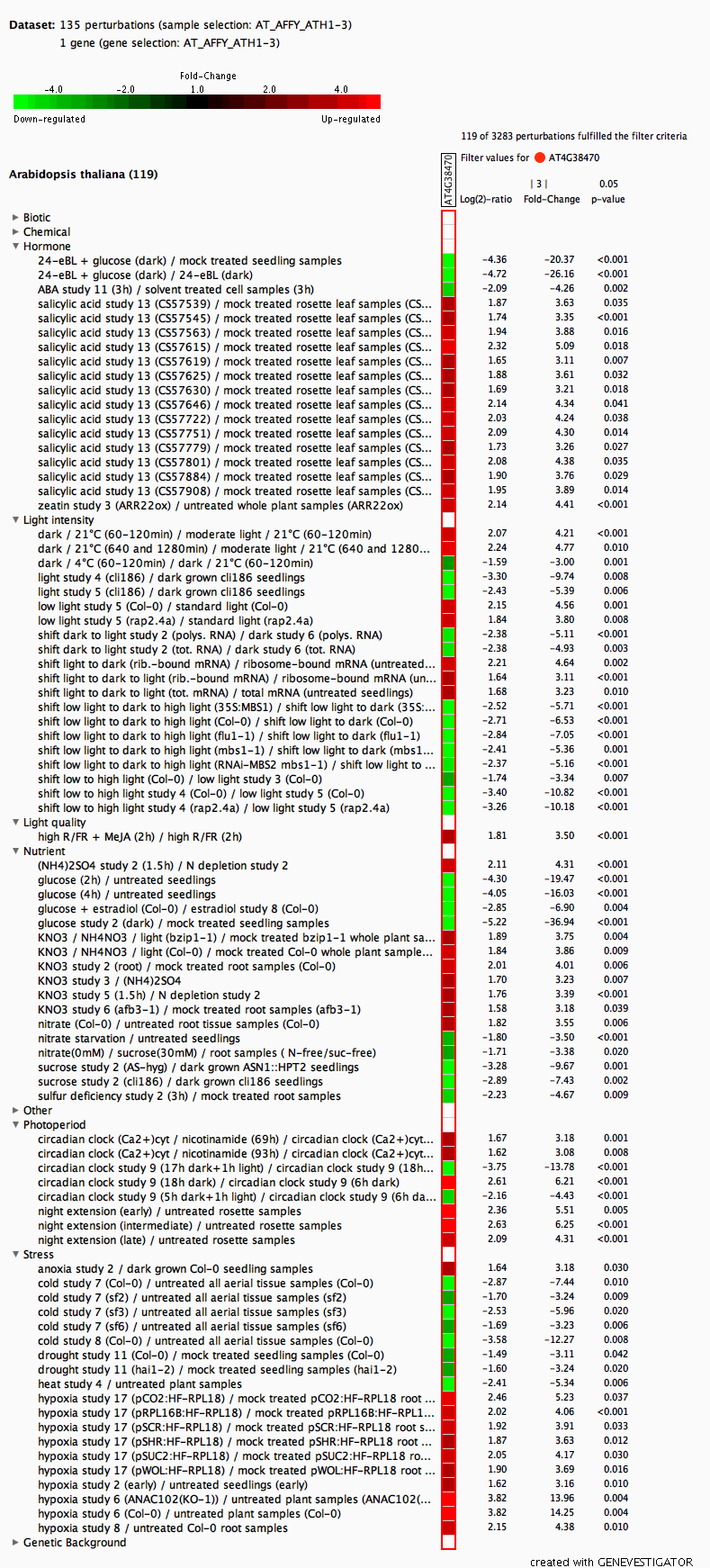


B



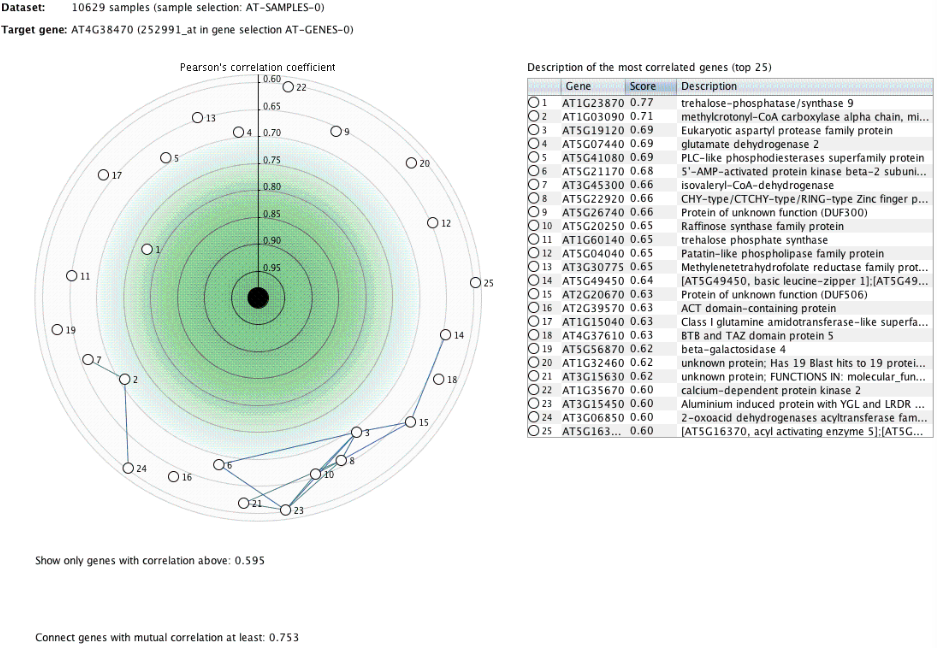
C



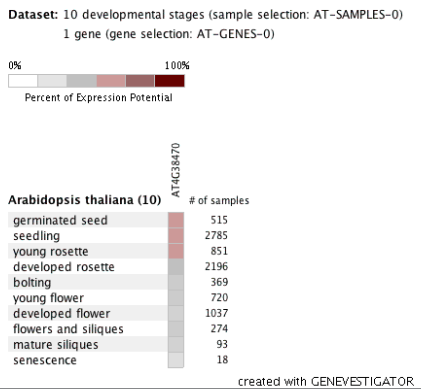


**Figure S1. Public expression data of STY46 created from Genevestigator® A**. Percent of the expression potential of STY46 at different developmental stages. **B**. different tissues. **C**. and under specific conditions (fold change > 3, *p* < 0.05).

A



B





**Figure S2. Public expression data of STY46 and related genes created from Genevestigator®**. **A**. Genes most correlated with STY46. **B**. STY46 is induced in Arabidopsis mesophyll protoplasts transiently expressing KIN10 (At3g01090).