

***Fusarium oxysporum* Tolerance assay in Strawberry (*Fragaria x ananassa*) Varieties and Analysis of *FaPAL* Gene Expression in an *In vitro* System**

Yazmín García-Canales¹, Alba Estela Jofre-y-Garfias², Silvia Edith Valdés-Rodríguez³, José Luis Hernández-Flores¹, Jesús Alonso Garduño-Hernández¹, Quiahuitl María Guadalupe Zavala-Navarro¹, Edmundo Lozoya-Gloria^{1,*}

¹Genetic Engineering Department, CINVESTAV-IPN Irapuato Unit, Guanajuato, Mexico.

²National School of Higher Studies, UNAM Campus Leon, Guanajuato, Mexico.

³Biotechnology & Biochemistry Department, CINVESTAV-IPN Irapuato Unit, Guanajuato, Mexico.

***Corresponding author:** Edmundo Lozoya-Gloria, email: edmundo.lozoya@cinvestav.mx

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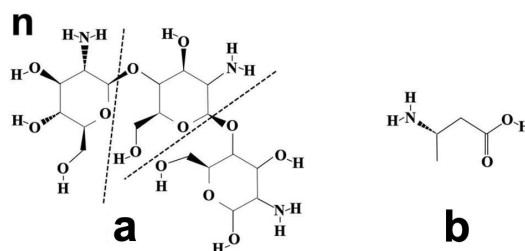
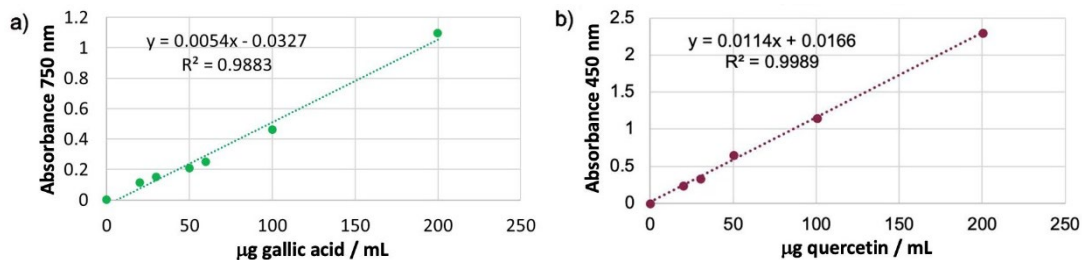
Supplementary Information

Table S1. Severity scale values assigned to the *Fof* tolerance in 'Nikté' and 'Camino Real' strawberry plants, according to the infection severity scales (Table 1).

| | 'Nikté' | | 'Camino Real' | |
|--------|---------------|---------------|---------------|---------------|
| | Control | <i>Fof</i> | Control | <i>Fof</i> |
| Leaves | 1 ± 0 b | 2.67 ± 1.21 a | 1 ± 0 b | 2.7 ± 1.12 a |
| Roots | 1 ± 0 b | 3.47 ± 1.11 a | 1 ± 0 b | 3.9 ± 0.92 a |
| Crown | 1.13 ± 0.35 b | 3.07 ± 1.11 a | 1 ± 0 b | 2.87 ± 1.07 a |

Table S2. Sequences of the used primers to amplify specific sequences.

| Gene | NCBI acc. number | Annealing temperature (T _m , °C) | Sequence (forward/reverse) Orientation 5' to 3' | Amplicon (pb) | Reference |
|-----------------|----------------------------|---|---|---------------|-----------|
| <i>FaEF1a</i> | BK009992.1 | 57 | TGGATTTGAGGGTGACAACATGA GTATACATCCTGAAGTGGTAGACGGAGG | 145 | [46] |
| <i>FaGAPDH2</i> | AF421145 | 60 | CCCAAGTAAGGATGCCCCCATGTTTCG TTGGCAAGGGGAGCAAGACAGTTGGTAG | 117 | [46] |
| <i>FaPR1</i> | AB462752.1 | 60 | ACATGGGATGCCAATCTAGC CCACAGGTTACAGCAGATG | 150 | [25] |
| <i>FaMBL1</i> | KF962716.1 | 57 | AAACCAACACGGCCAATAAG GTCTGTCCGGTAGTCGAAGC | 116 | [48] |
| <i>FaWRKY1</i> | EU727547 | 60 | ACAGCAGTAAGATTAGGGATGAAGAAGGGAG GCTTCTCACATTGCAACCCTGATGCGTG | 196 | [46] |
| <i>FaCyl1</i> | AJ845186 | 60 | GCCAAGTTCAACATGCTACTC TGCTCCACCTCCATCTGAT | 116 | [47] |
| <i>FaChi3</i> | AF134347.1 | 60 | ACCAAGTTCAGCTCGCAGAT TCCTAATGGCCTTGAAGTGG | 177 | [25] |
| <i>FaPAL1</i> | KX450226.1 | 57 | CTTCTCAAGATTGCTGCTT AATTCTCCCTCACAAACCT | 159 | This work |
| <i>FaPAL2</i> | KX450227.1 | 57 | CATTACTCCCTGCTTGCCTCTCC CCTGAGCTGATACCGACTTGTTCG | 171 | This work |

**Fig. S1.** Structure of chitosan (a), and BABA (b). Chitosan is a polymer of β-(1-4)-linked D-glucosamine repeated “n” times, in comparison to BABA structure.**Fig. S2.** Standard curves of GA and quercetin to quantify phenols and flavonoids in strawberry tissues.

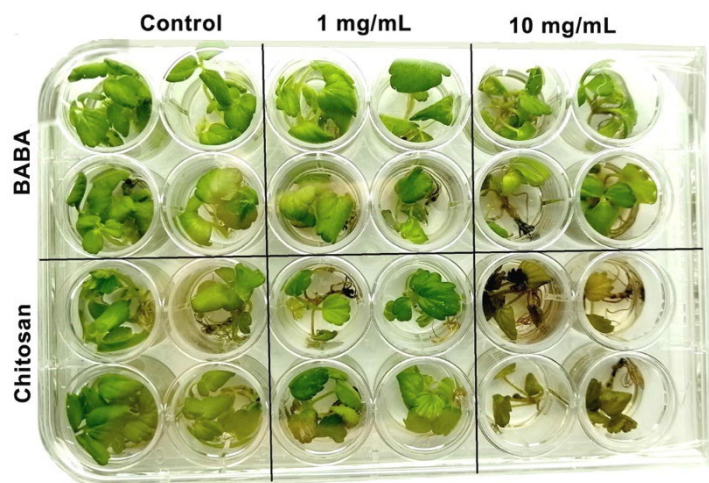


Fig. S3. BABA and chitosan treatments of strawberry plantlets. Results of chosen concentrations of BABA 10 mg/mL and chitosan 1 mg/mL after 3 days, are shown. Controls were diluted acetic acid pH 5.8 for chitosan, and DDW for BABA.

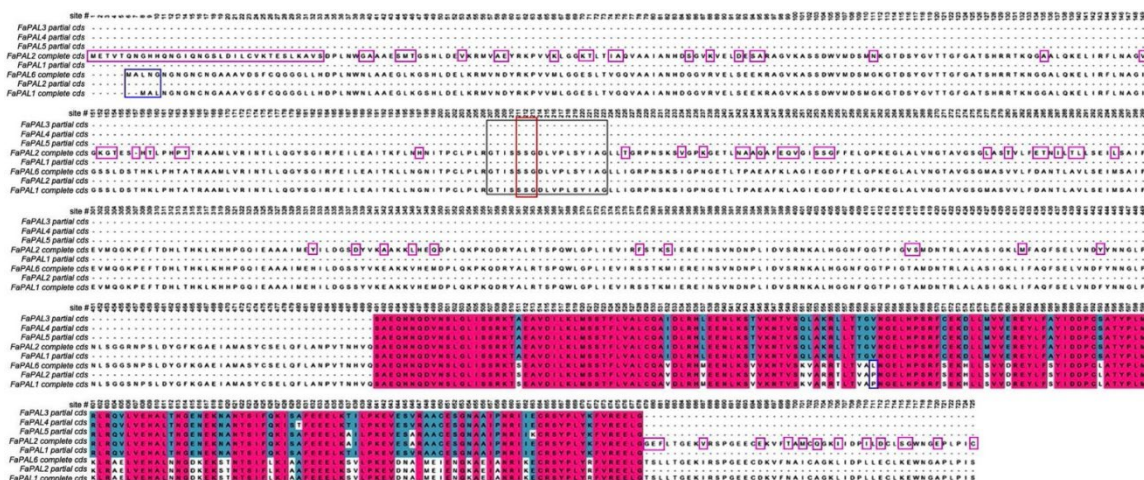


Fig. S4. Complete amino acid sequences of FaPAL1, FaPAL2 and FaPAL3. Magenta boxes are the differences between FaPAL 2, and FaPAL1 - FaPAL6. Blue boxes are differences between FaPAL1 and FaPAL6. Black box is the active site and red box is the catalytic triad. Pink and green boxes are the conserved sequences of the partial *FaPAL1*, *FaPAL2*, *FaPAL3*, *FaPAL4* and *FaPAL5*.