Supplementary Material

Cytotoxic, Genotoxic, and Polymorphism Effects on Vanilla planifolia Jacks ex Andrews after Long-Term Exposure to Silver Nanoparticles

Jericó Jabín Bello-Bello ^{1,*}, José Luis Spinoso-Castillo ², Samantha Arano-Avalos ², Eduardo Martínez-Estrada ², María Evarista Arellano- García ³, Alexey Pestryakov ⁴, Yanis Toledano-Magaña ⁵, Juan Carlos García-Ramos ^{5,*} and Nina Bogdanchikova ⁶



Figure S1. Electrophoresis pattern of ISSR banding profiles of five plants (1–5) of *V. planifolia* exposed to AgNP for six weeks on in vitro culture. The amplification for primer UBC 809 is shown. From left to right: 0, 25, 50, 100, and 200 mg/L of AgNPs, respectively. M = molecular mass marker 1 kbp plus DNA ladder; bp = base pairs.



Figure S2. Electrophoresis pattern of ISSR banding profiles of five plants (1–5) of *V. planifolia* exposed to AgNP for six weeks on in vitro culture. The amplification for primer T06 is shown. From left to right: 0, 25, 50, 100, and 200 mg/L of AgNPs, respectively. M = molecular mass marker 1 kbp plus DNA ladder; bp = base pairs.



Figure S3. Electrophoresis pattern of ISSR banding profiles of five plants (1–5) of *V. planifolia* exposed to AgNP for six weeks on in vitro culture. The amplification for primer UBC 840 is shown. From left to right: 0, 25, 50, 100, and 200 mg/L of AgNPs, respectively. M = molecular mass marker 1 kbp plus DNA ladder; bp = base pairs.



Figure S4. Electrophoresis pattern of ISSR banding profiles of five plants (1–5) of *V. planifolia* exposed to AgNP for six weeks on in vitro culture. The amplification for primer UBC 836 is shown. From left to right: 0, 25, 50, 100, and 200 mg/L of AgNPs, respectively. M = molecular mass marker 1 kbp plus DNA ladder; bp = base pairs.



Figure S5. Electrophoresis pattern of ISSR banding profiles of five plants (1–5) of *V. planifolia* exposed to AgNP for six weeks on in vitro culture. The amplification for primer UBC 812 is shown. From left to right: 0, 25, 50, 100, and 200 mg/L of AgNPs, respectively. M = molecular mass marker 1 kbp plus DNA ladder; bp = base pairs.



Figure S6. Electrophoresis pattern of ISSR banding profiles of five plants (1–5) of *V. planifolia* exposed to AgNP for six weeks on in vitro culture. The amplification for primer 808 is shown. From left to right: 0, 25, 50, 100, and 200 mg/L of AgNPs, respectively. M = molecular mass marker 1 kbp plus DNA ladder; bp = base pairs.



Figure S7. Electrophoresis pattern of ISSR banding profiles of five plants (1–5) of *V. planifolia* exposed to AgNP for six weeks on in vitro culture. The amplification for primer T05 is shown. From left to right: 0, 25, 50, 100, and 200 mg/L of AgNPs, respectively. M = molecular mass marker 1 kbp plus DNA ladder; bp = base pairs.



Figure S8. Electrophoresis pattern of ISSR banding profiles of five plants (1–5) of *V. planifolia* exposed to AgNP for six weeks on *in vitro* culture. The amplification for primer C07 is shown. From left to right: 0, 25, 50, 100, and 200 mg/L of AgNPs, respectively. M = molecular mass marker 1 kbp plus DNA ladder; bp = base pairs.