

## Supplementary Information

### Degradation of Levofloxacin by *Porostereum spadiceum*: from genome to application

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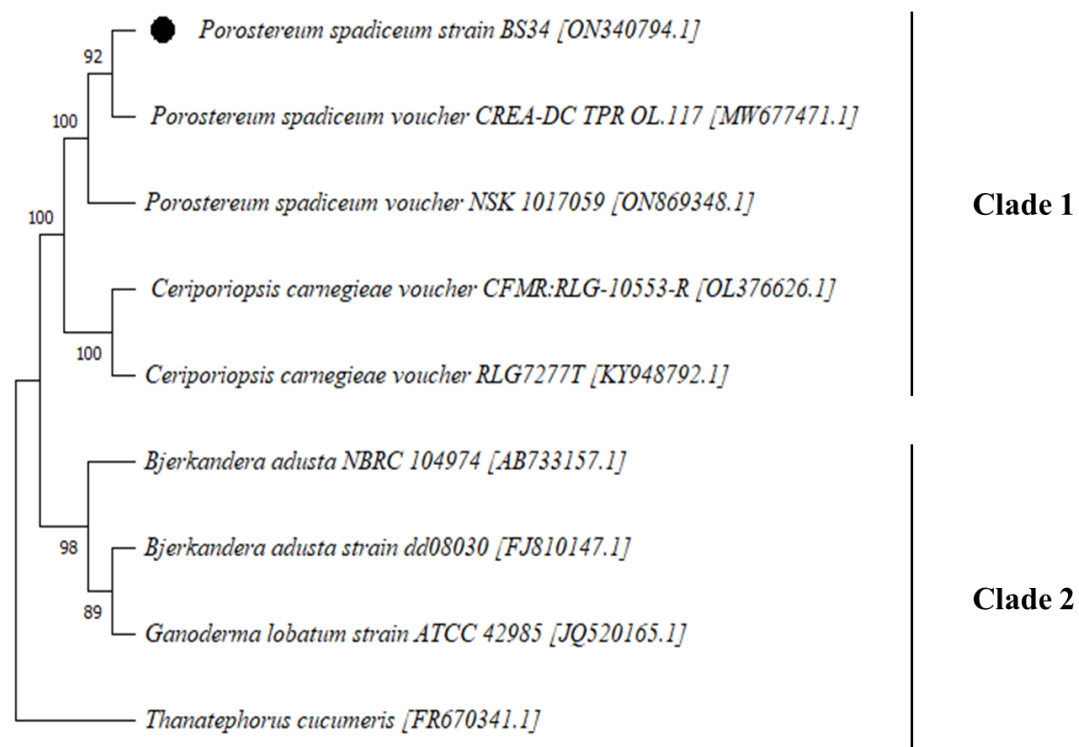
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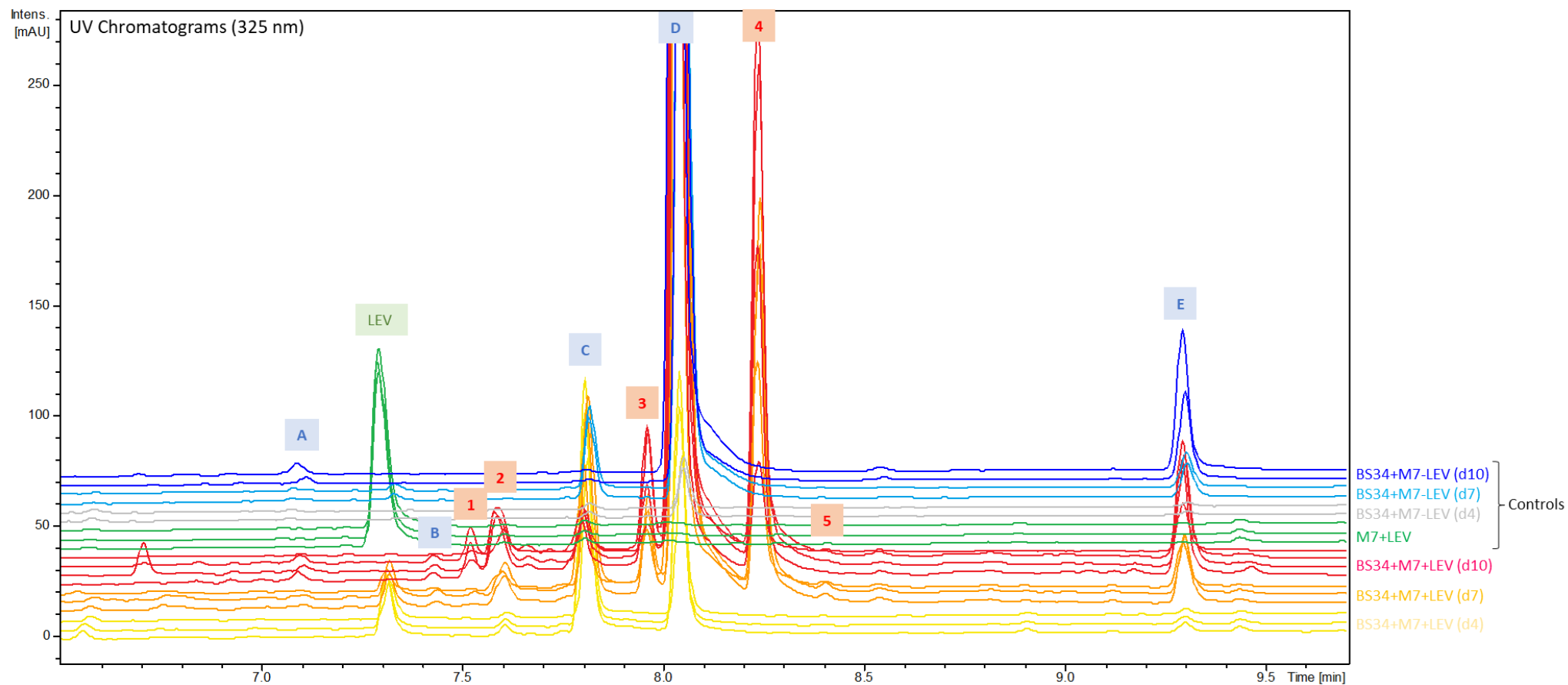
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**Figure S1.** Bootstrap consensus tree of *Porostereum spadiceum* based on the maximum likelihood method. Bootstrap values are indicated in the branches, and all strains are shown with their accession numbers in brackets. Strain BS34 is indicated by the black circle.

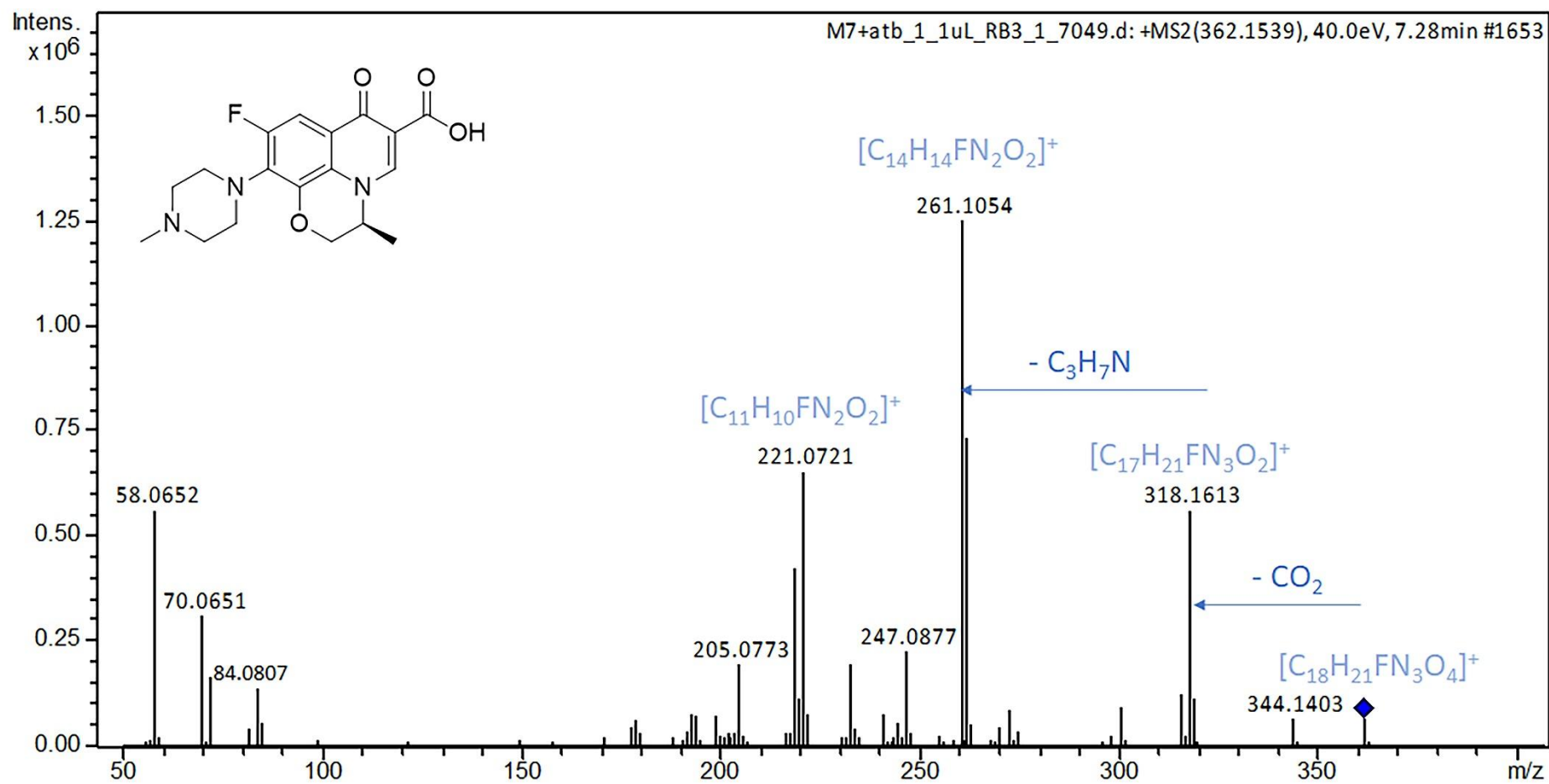
The neighbor-joining method was used to determine evolutionary history (Saitou and Nei, 1987). The bootstrap consensus tree computed from 500 replicates was used to plot the evolutionary history of the taxa analyzed (Felsenstein, 1985). Branches corresponding to partitions replicated in less than 50% of bootstrap replicates were trimmed. Percentage of replicate trees grouping the associated taxa in the bootstrap test (500 replicates) was indicated next to the branches, and the maximum composite likelihood method was used to calculate evolutionary distances expressed as number of base substitutions per site (Felsenstein, 1985; Tamura et al., 2004). This analysis included 9 nucleotide sequences. All ambiguous positions in each pair of sequences were removed (pairwise removal option). The final dataset contained 650 positions. Evolutionary analyses were performed using MEGA11 software (Tamura et al., 2021).



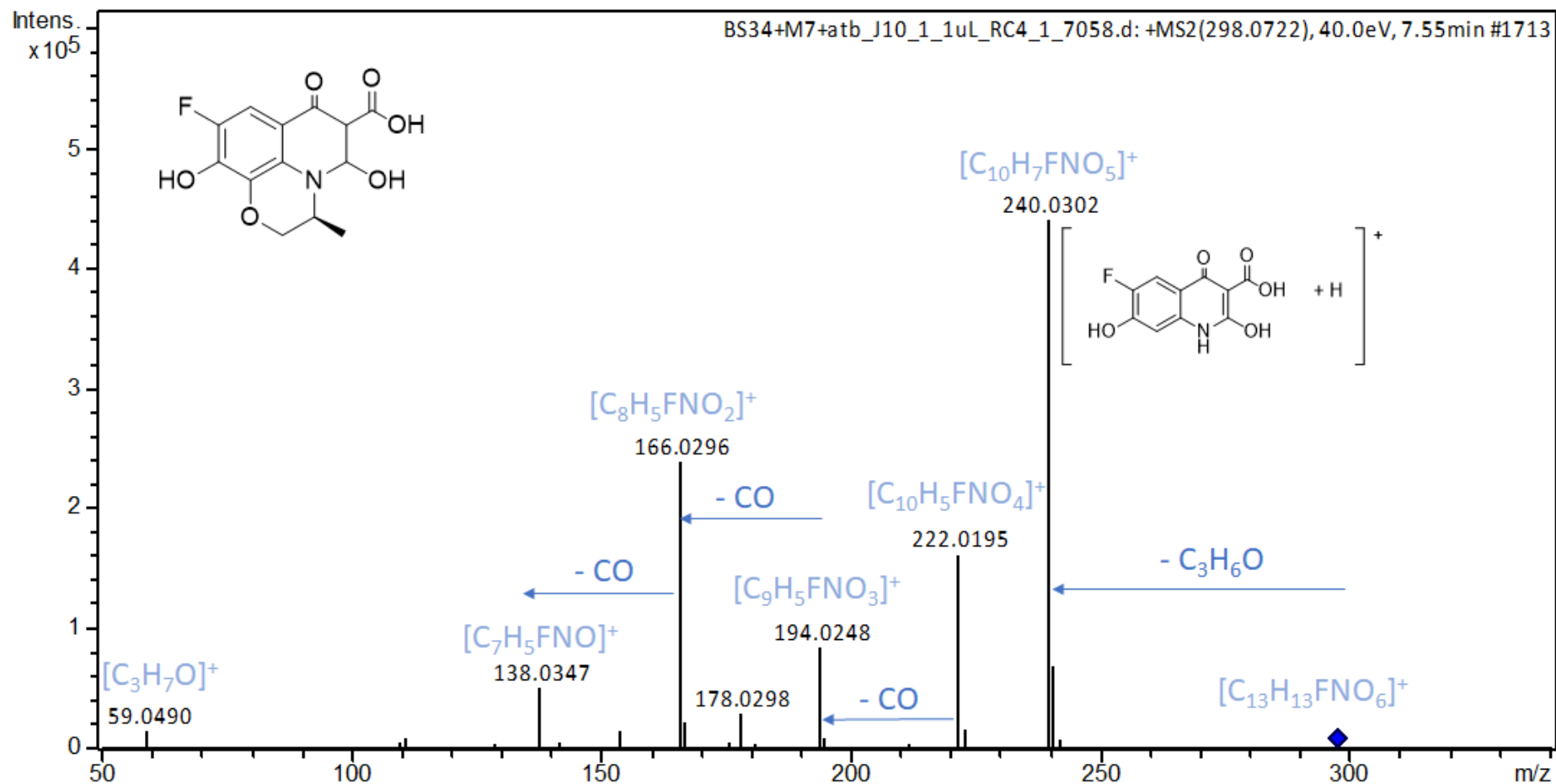
**Figure S2.** UV chromatograms of levofloxacin samples after 4, 7, and 10 days of culture in the presence of *Porostereum spadiceum*. LEV = Levofloxacin. Numbers are degradation products of levofloxacin (see Table 4 in the main manuscript). Letters are *P. spadiceum* metabolites.



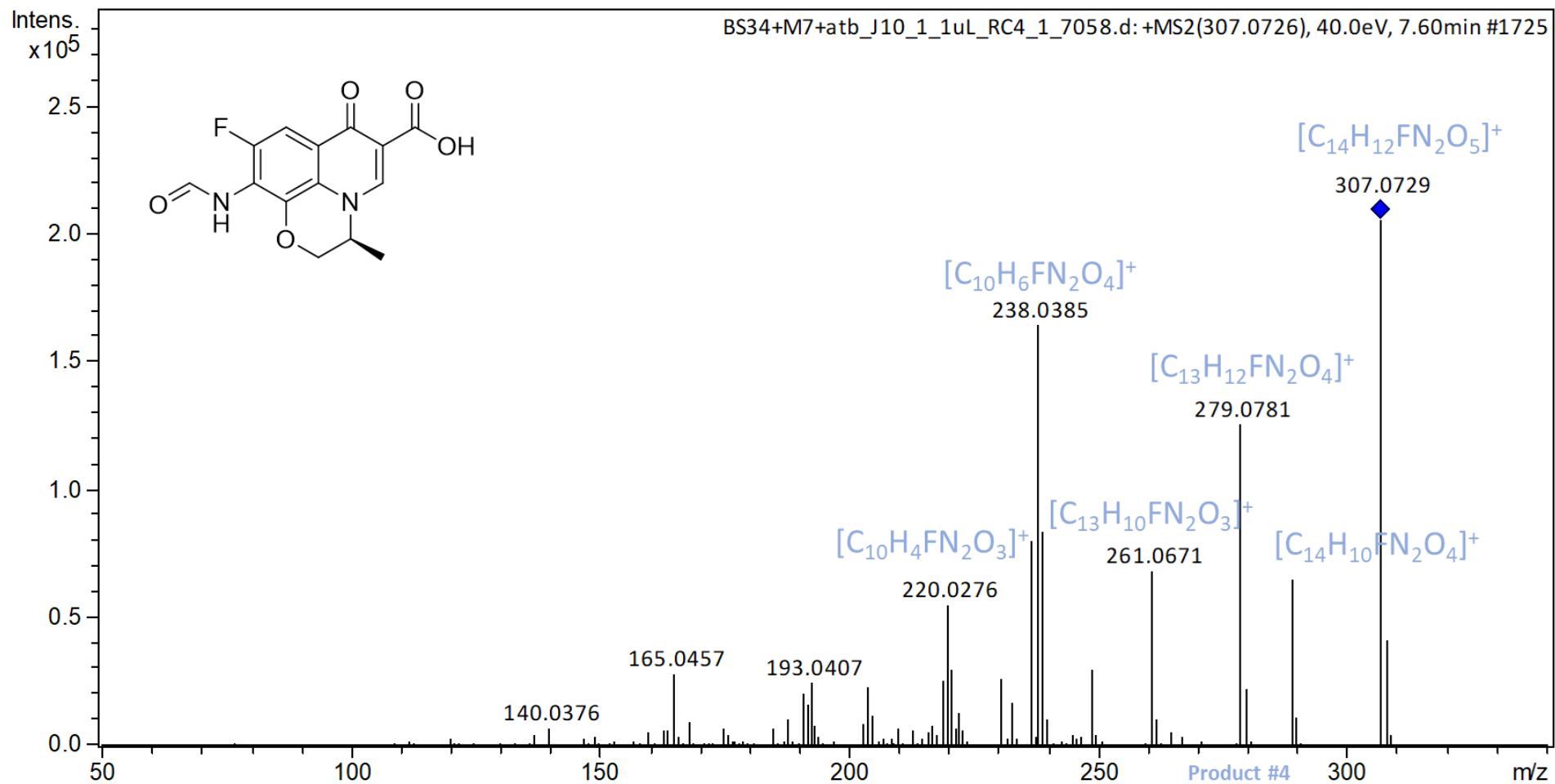
**Figure S3.** Chemical formula and fragmentation mass spectrum of levofloxacin (at a collision energy of 40 eV).



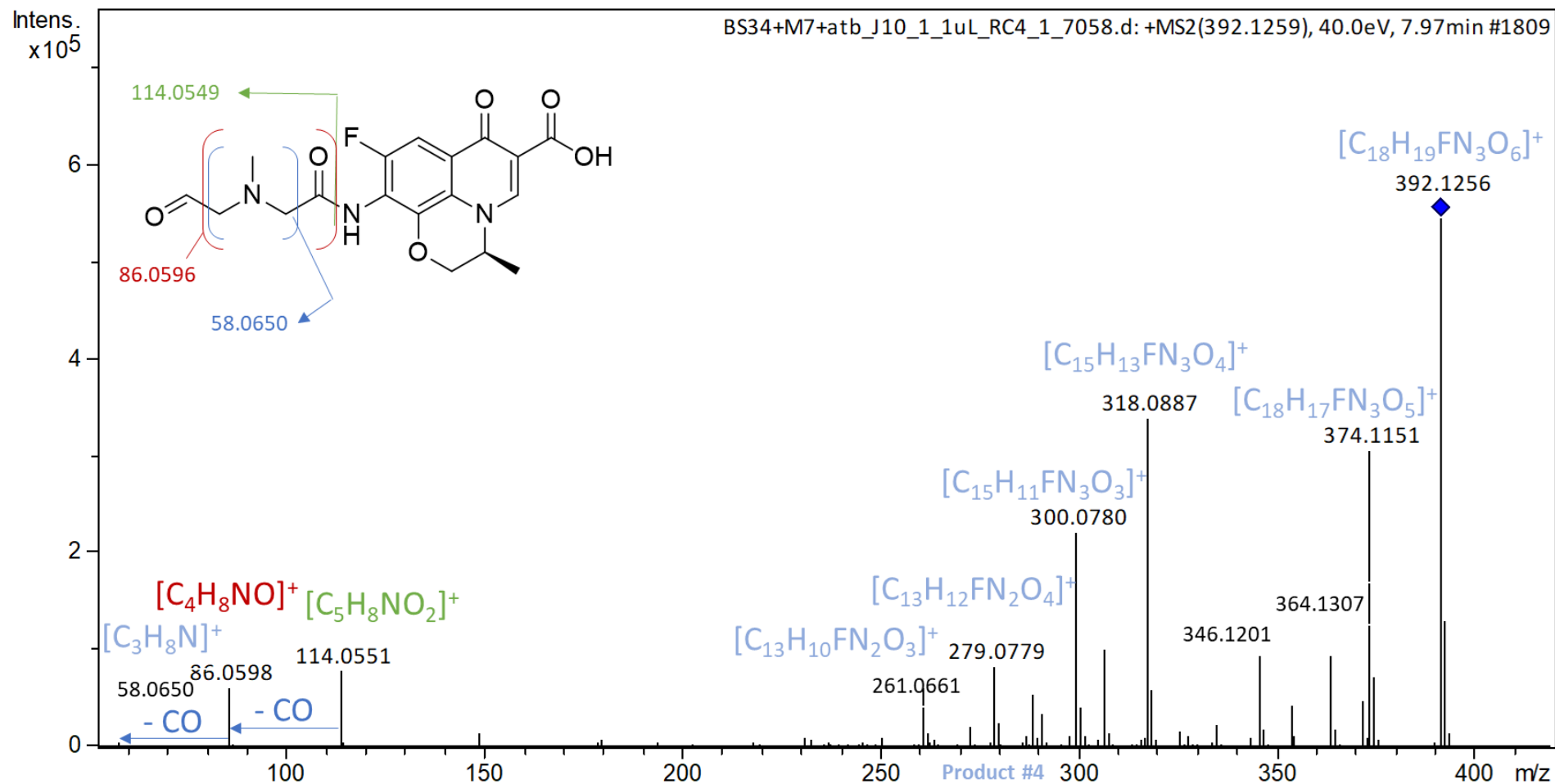
**Figure S4.** The fragmentation mass spectrum of levofloxacin degradation product #1 (collision energy 40 eV), a minor product detected on day 10 in the UV chromatogram at 325 nm (See Table 4 of the main manuscript).



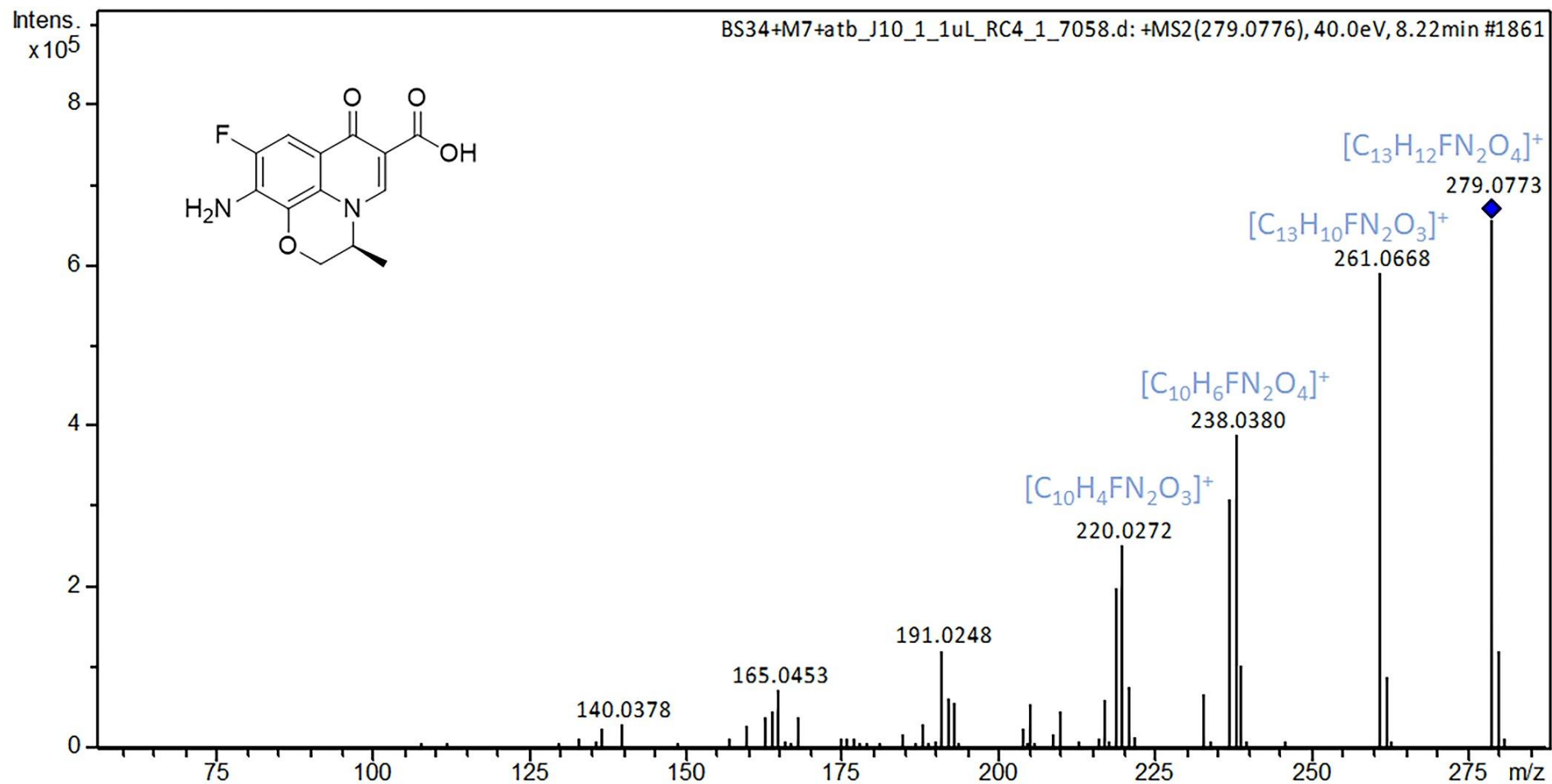
**Figure S5.** The fragmentation mass spectrum of levofloxacin degradation product #2 (collision energy 40 eV), a minor product detected at days 7 and 10 in the UV chromatogram at 325 nm (See Table 4 of the main manuscript).



**Figure S6.** The fragmentation mass spectrum of levofloxacin degradation product #3 (collision energy 40 eV), detected at days 7 and 10 in the UV chromatogram at 325 nm (See Table 4 of main manuscript).



**Figure S7.** The fragmentation mass spectrum of levofloxacin degradation product #4 (collision energy 40 eV), a major product detected at days 7 and 10 in the UV chromatogram at 325 nm (See Table 4 of main manuscript).





**Figure S8.** The fragmentation mass spectrum of levofloxacin degradation product #5 (collision energy 40 eV), detected at trace levels at days 7 and 10 in the UV chromatogram at 325 nm (See Table 4 of main manuscript).

