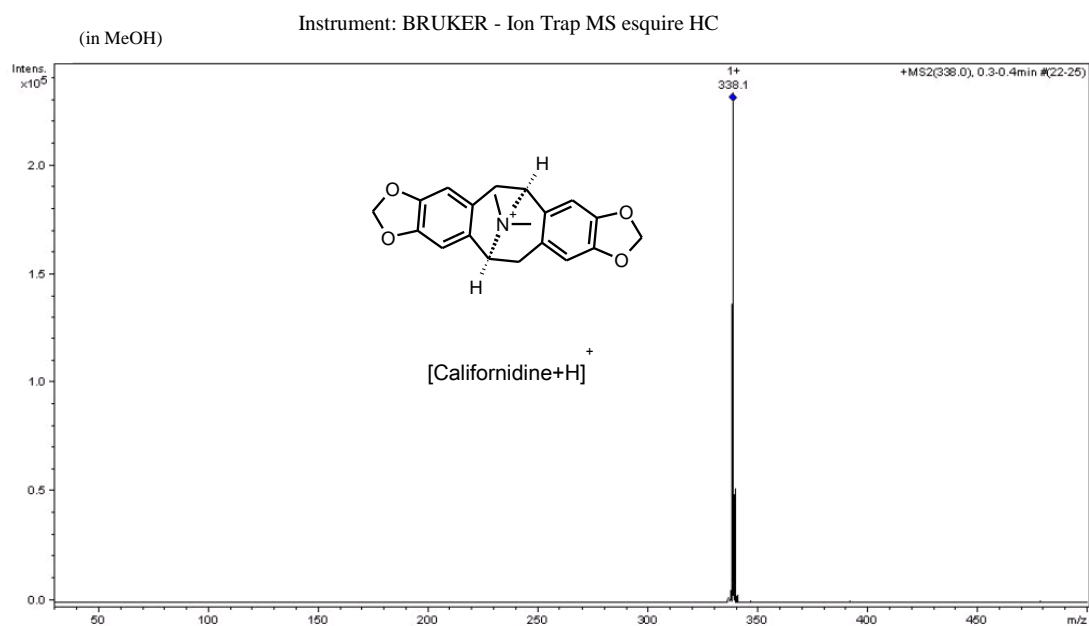
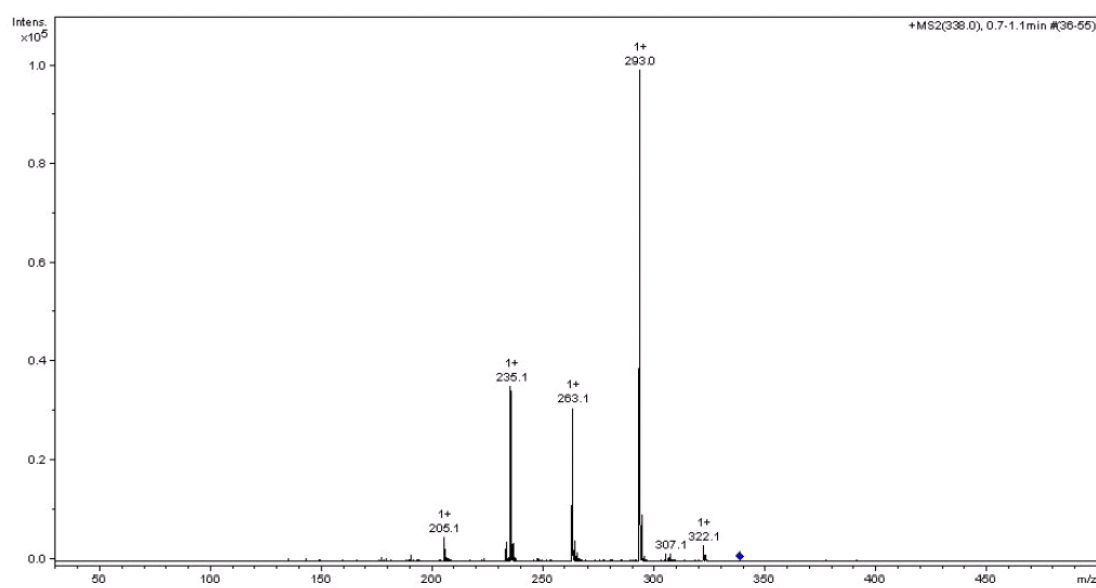


**Figure S1.** ESI trace (a) and tandem MS/MS fragmentation pattern (b-c) for (*S*)-Reticuline detected in the “NMT fraction” isolated from *E. californica* (see the main text).

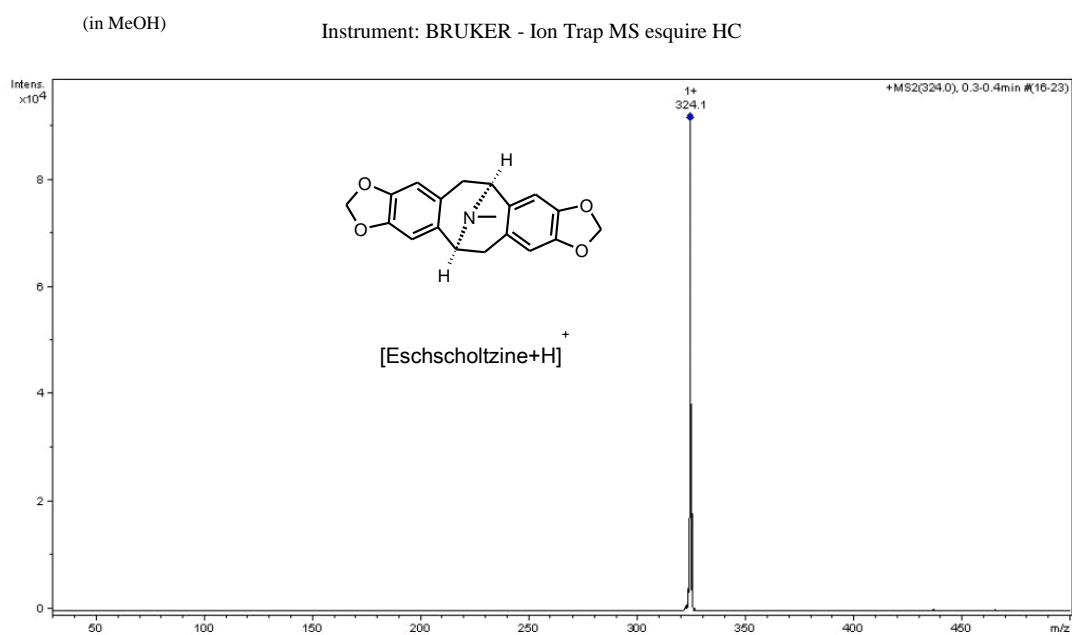


a)

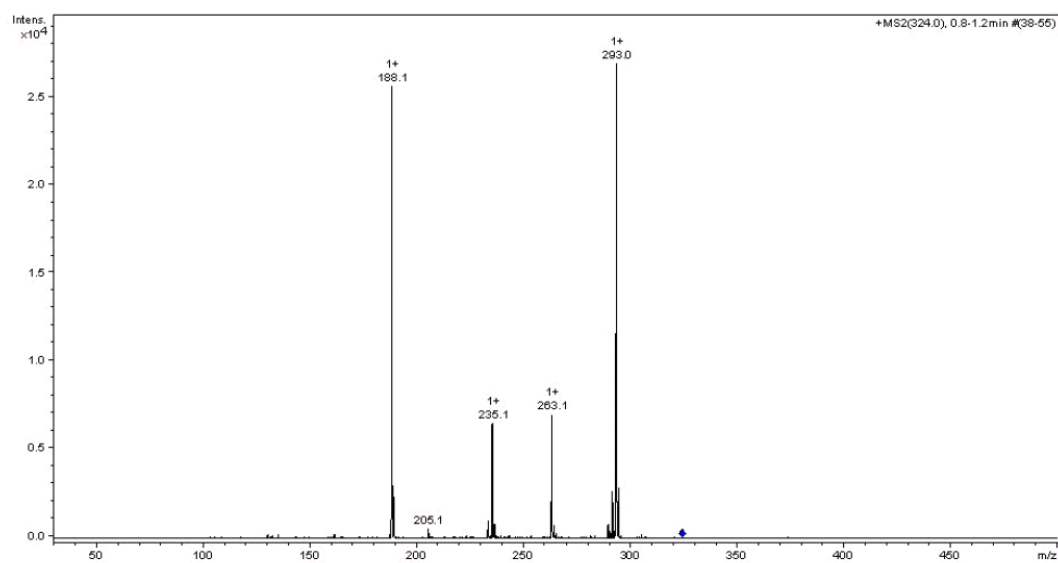


b)

**Figure S2.** ESI trace (a) and tandem MS/MS fragmentation pattern (b) for Californidine isolated from *E. californica*, Arcopharma, no. AMM 57426001 (Method A).

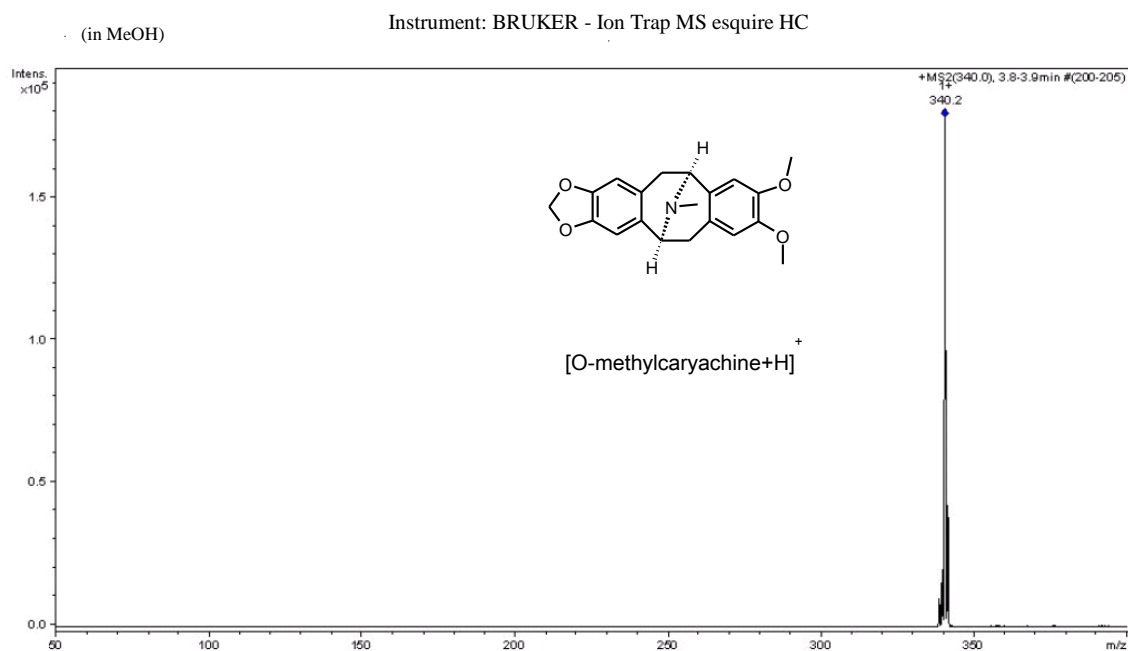


a)

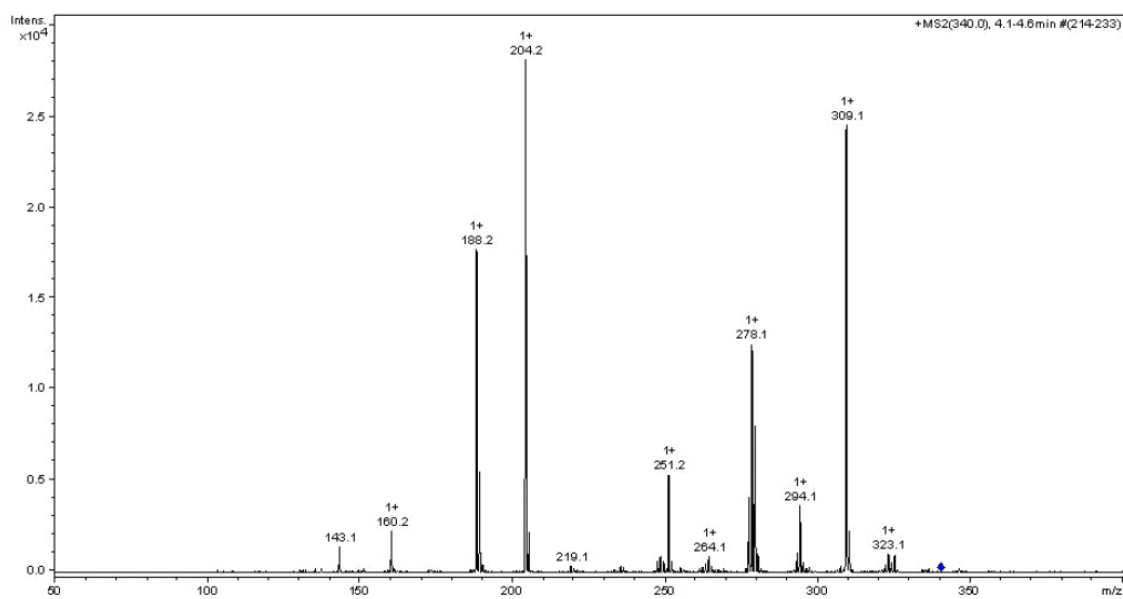


b)

**Figure S3.** ESI trace (a) and tandem MS/MS fragmentation pattern (b) for Eschscholtzine isolated from *E. californica*, Arcopharma, no. AMM 57426001 (Method A).



a)

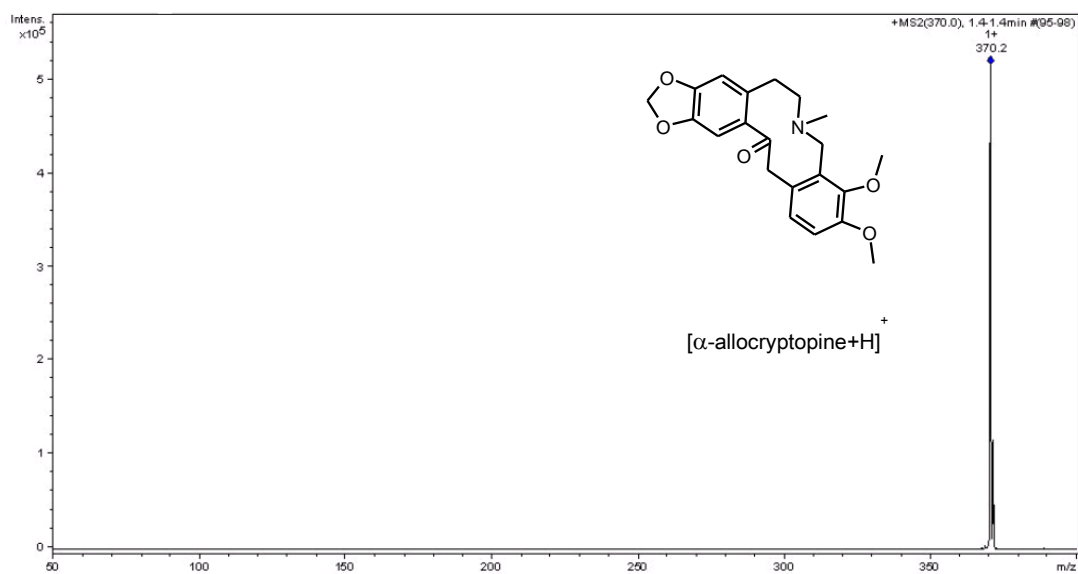


b)

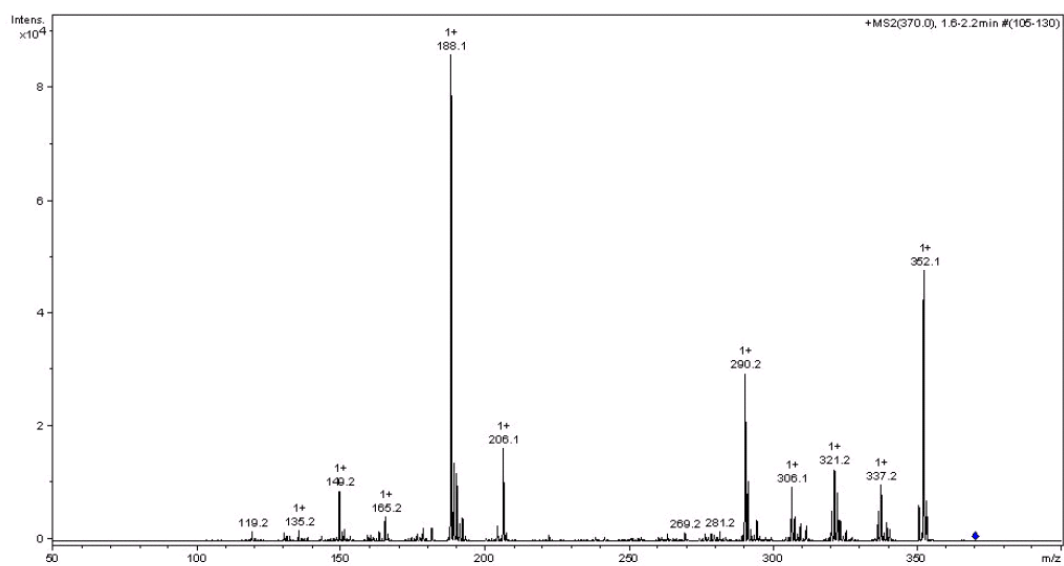
**Figure S4.** ESI trace (a) and tandem MS/MS fragmentation pattern (b) for *O*-methylcaryachine isolated from *E. californica*, Arcopharma, no. AMM 57426001 (Method A).

(in MeOH)

Instrument: BRUKER - Ion Trap MS esquire HC

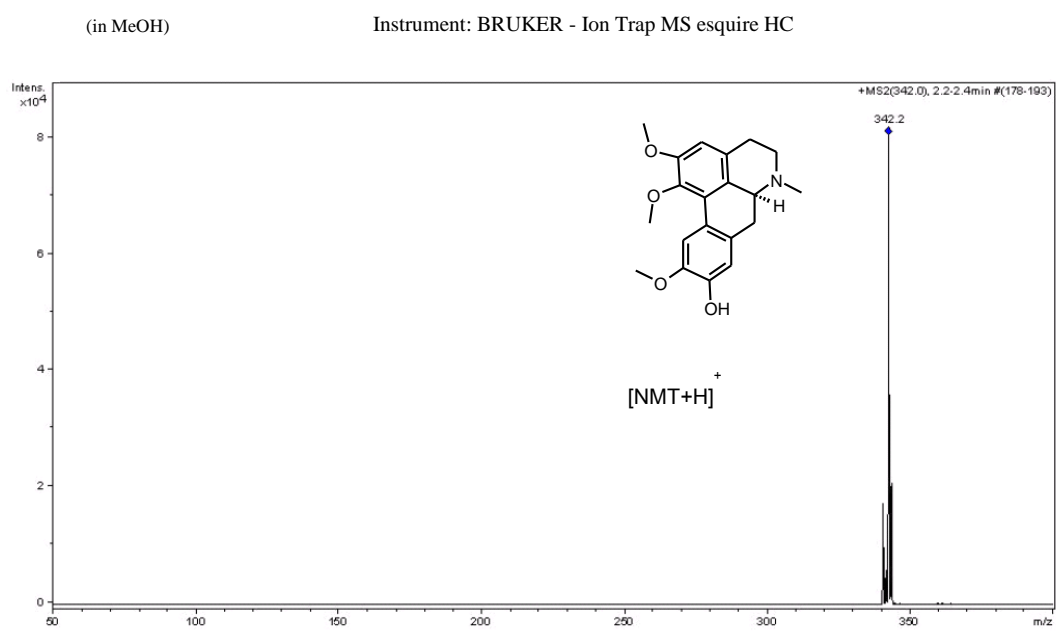


a)

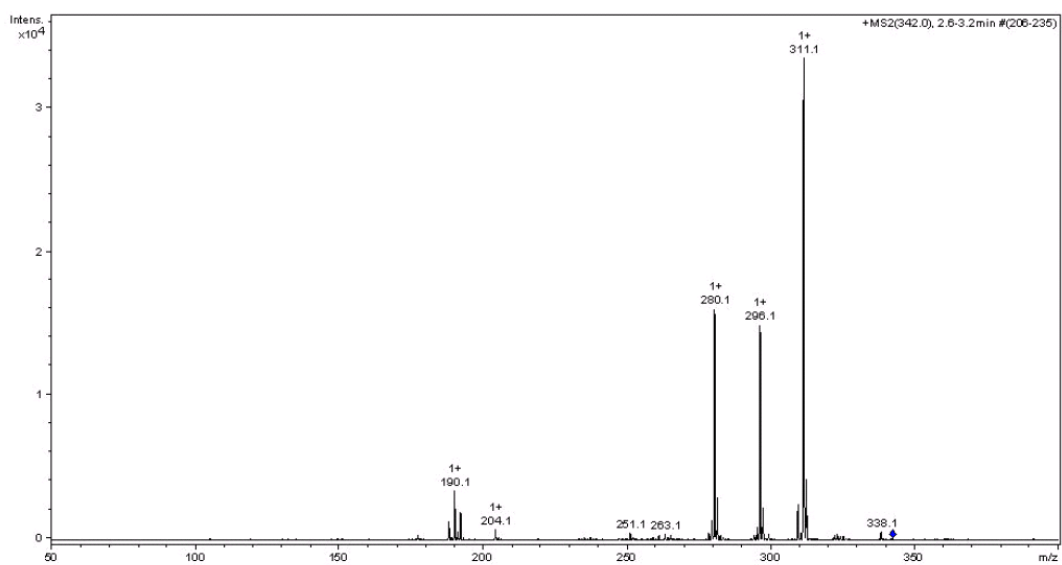


b)

**Figure S5.** ESI trace (a) and tandem MS/MS fragmentation pattern (b) for  $\alpha$ -allocryptopine isolated from *E. californica*, Arcopharma, no. AMM 57426001 (Method A).

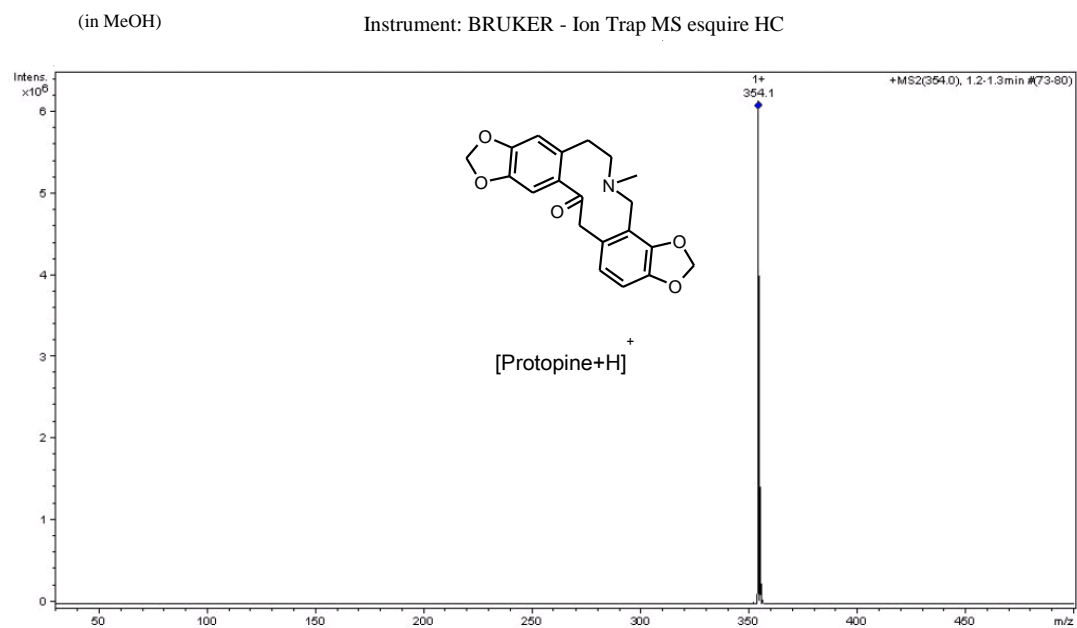


a)

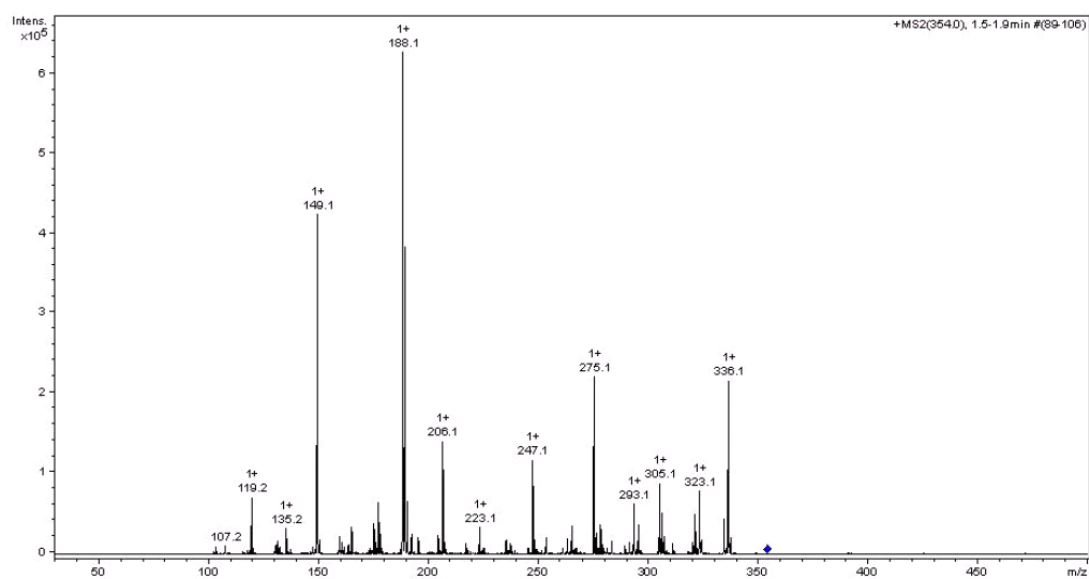


b)

**Figure S6.** ESI trace (a) and tandem MS/MS fragmentation pattern (b) for *N*-methyllaurotetanine isolated from *E. californica*, Arcopharma, no. AMM 57426001 (Method A).

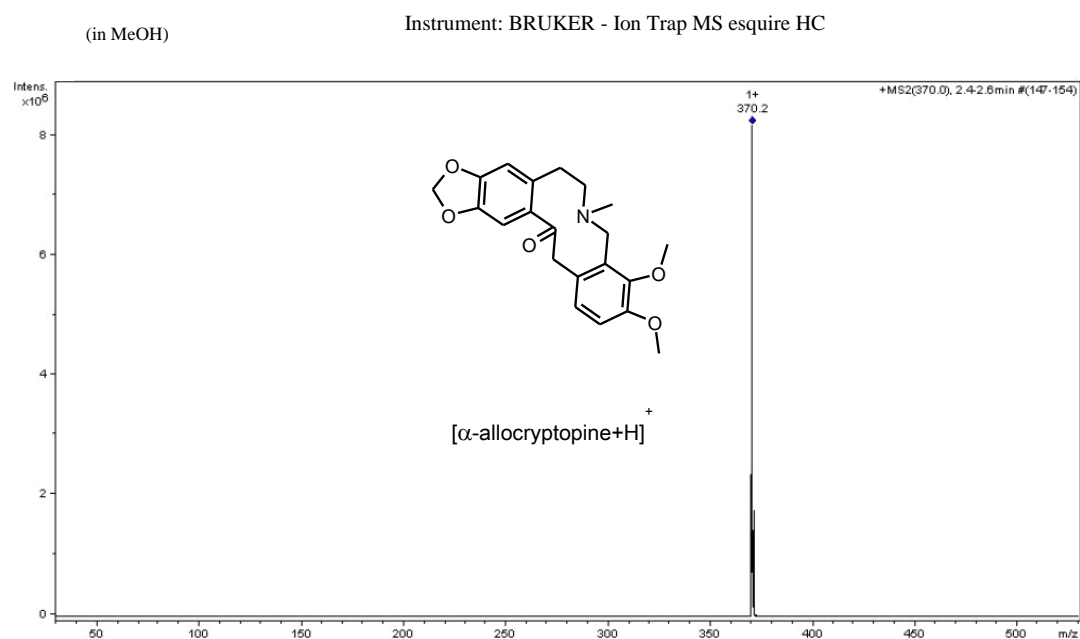


a)

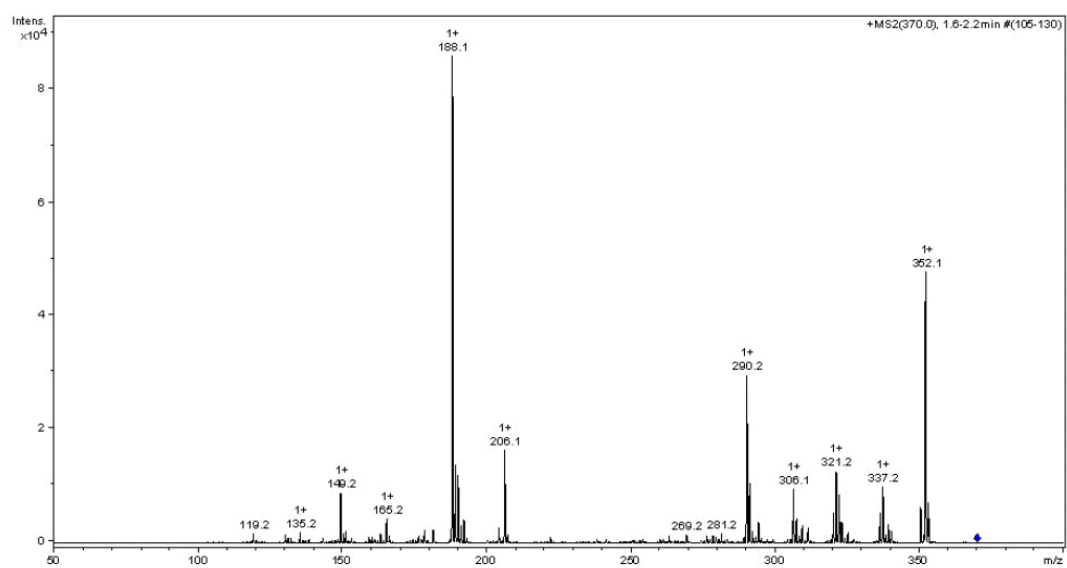


b)

**Figure S7.** ESI trace (a) and MS/MS fragmentation pattern (b) for the commercial Protopine sample obtained from Sigma (product number: P8489).



a)



b)

**Figure S8.** ESI trace (a) and MS/MS fragmentation pattern (b) for the commercial  $\alpha$ -allocryptopine obtained from Aldrich (product number: S450987).