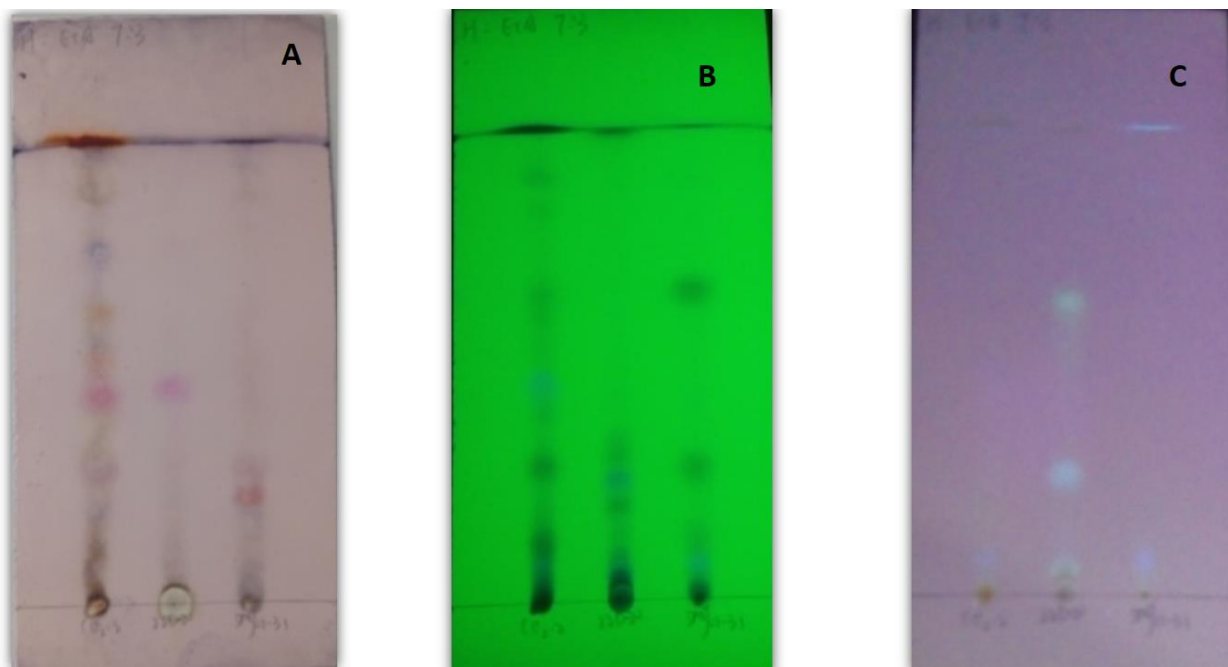
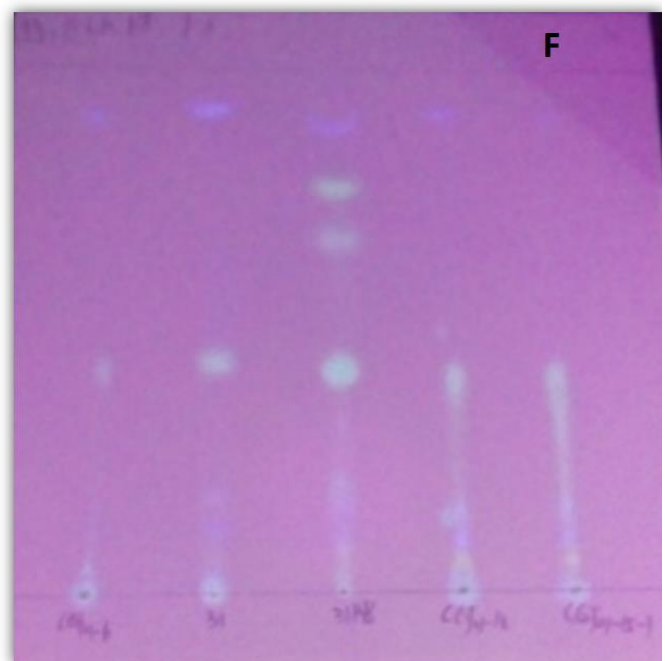
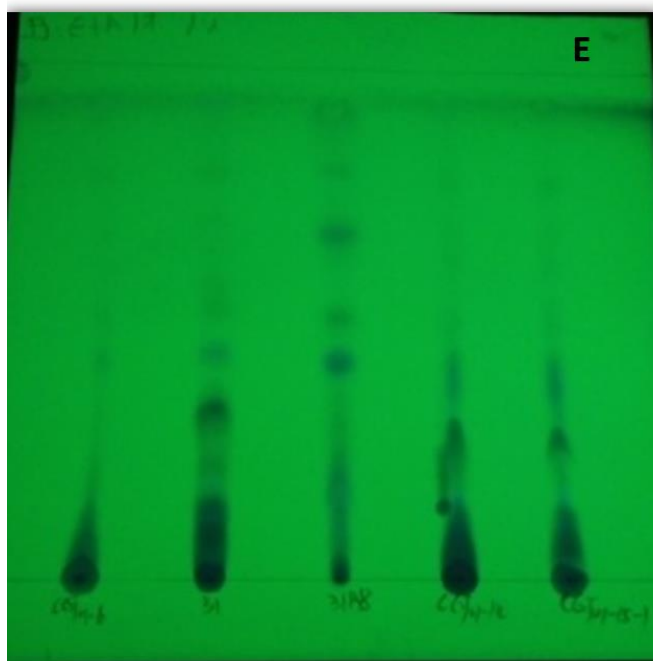
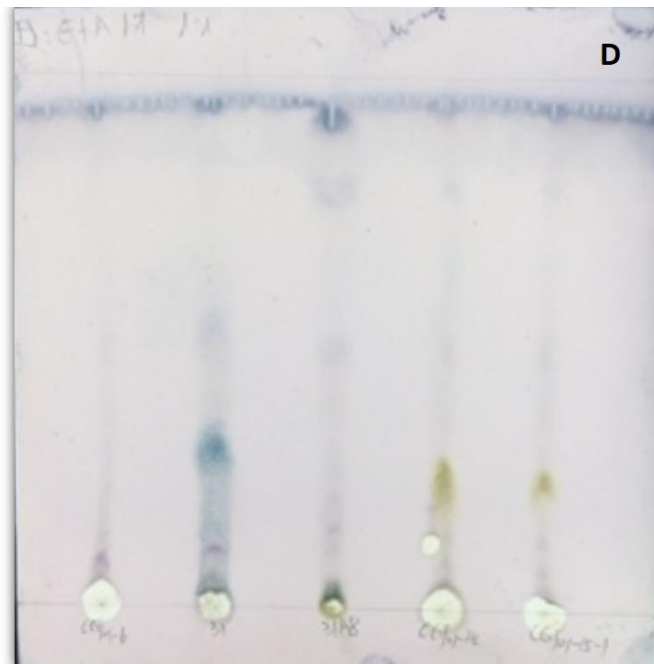


## Supplementary material

### Qualitative Chemical analysis

A qualitative chemical analysis of active strains extracts in AChE inhibition assay was done in order to test the presence of groups of secondary metabolites using Thin Layer Chromatography (TLC). The solvent systems were: hexane-acetone 7:3 (strains with codes 1, 2 and 18); hexane-dichloromethane 6:4 (strains with codes 3, 4, 5, 6, 7, 15, 19, 23, 24, 28, 46 and 49; hexane-ethyl acetate 1:1 (strains with codes 18, 20, 26, 27 and 53); the plates were also observed in short and long wave in UV lamp and the development was performed on aluminum plates coated with silica gel 60 F<sub>254</sub>. The following spray reagents were used: anisaldehyde-sulphuric acid (to look for presence of sterols, phenolic compounds, terpenes) and Dragendorff's reagent (to look for presence of alkaloids).





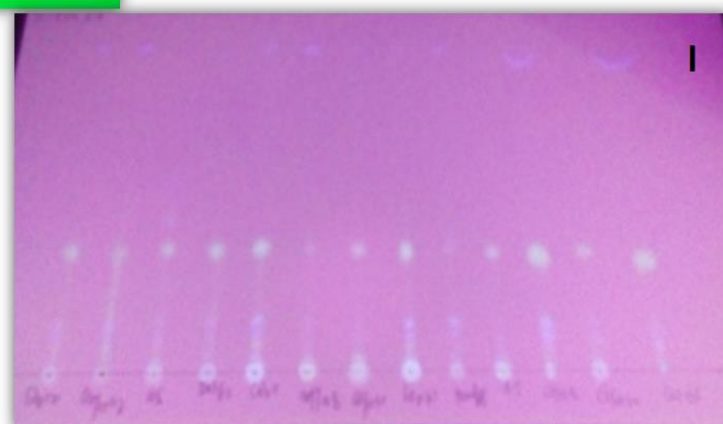
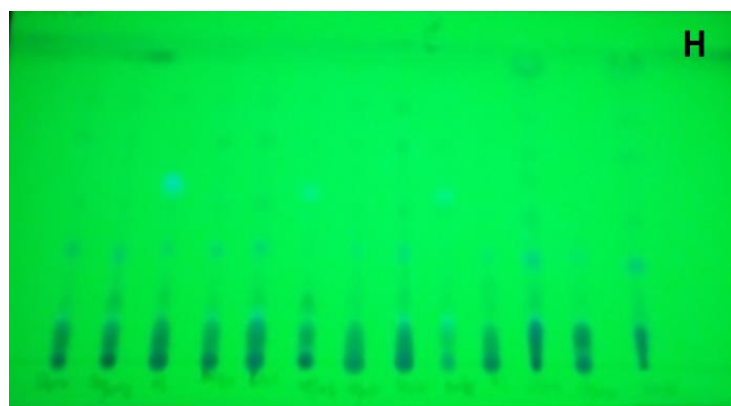
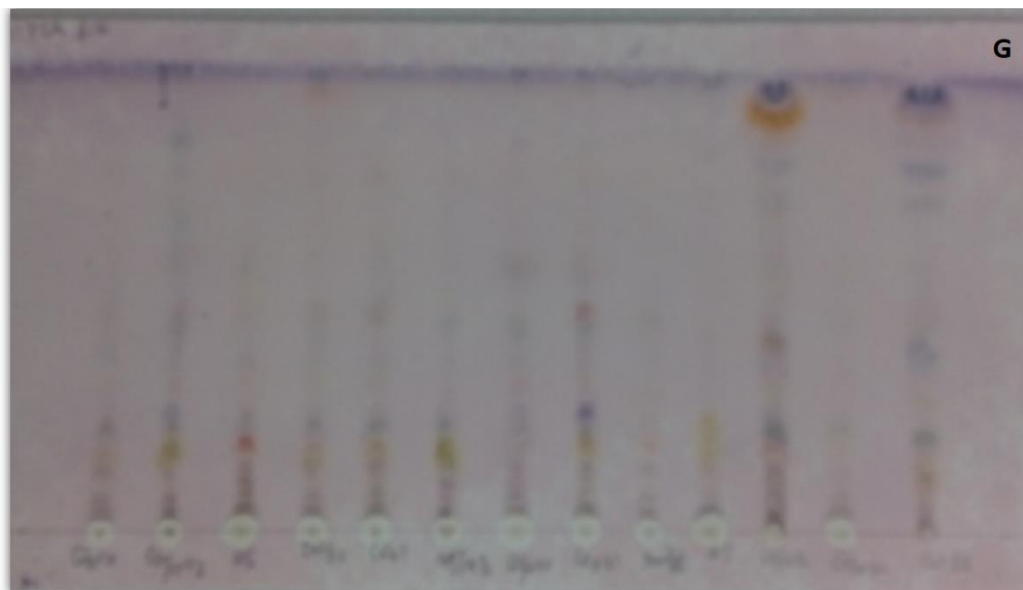


Figure S1: A, B, C, correspond to TLC plates of the strains with code No. 1, 8 and 2 in the mobile phase hexane: acetone 7:3. D, E, F, correspond to TLC plates of the strains with code No. 15, 46, 19, 23, 3, 4, 5, 7, 49, 28, 6 and 24 in the mobile phase hexane-dichloromethane 6:4. G, H, I, correspond to TLC plates of the strains No. 27, 18, 20, 26, and 53 in the mobile phase hexane: ethyl acetate 1:1.