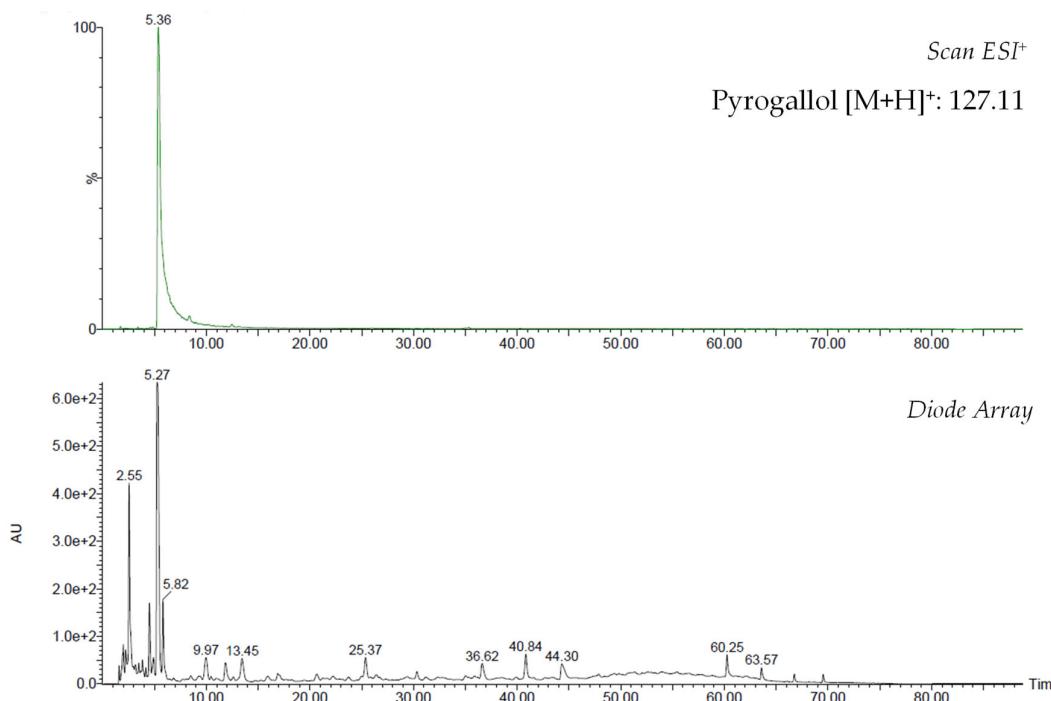
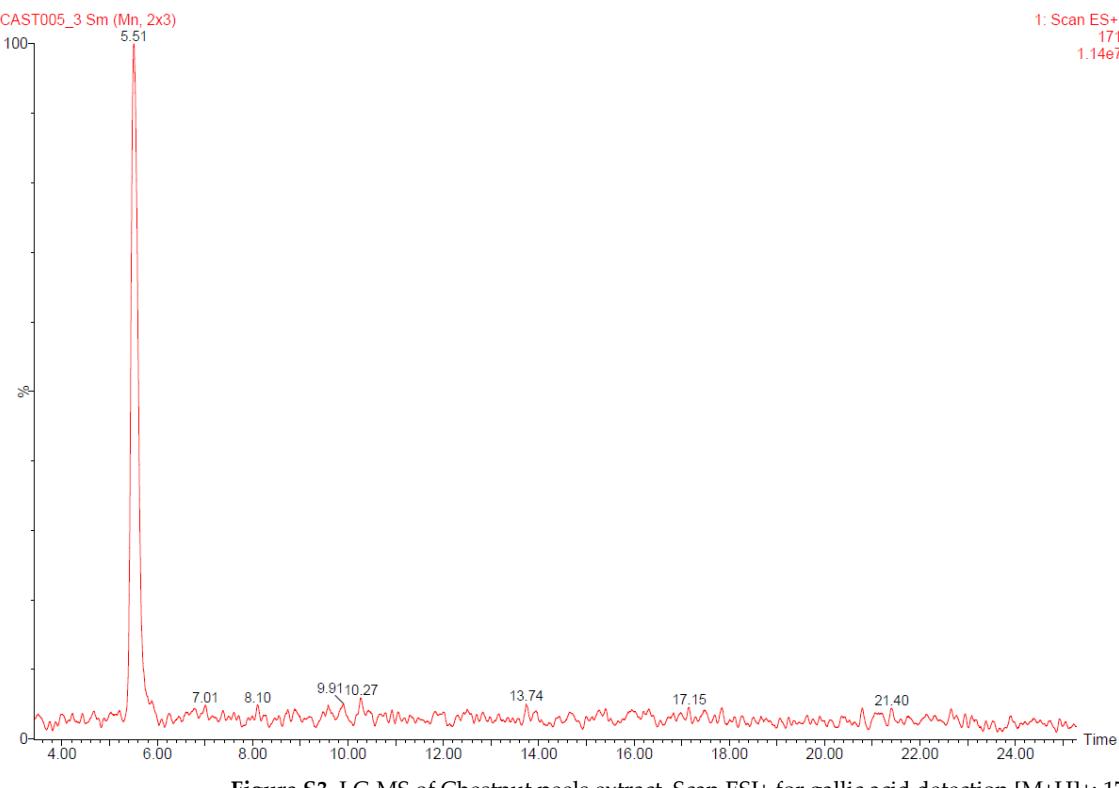


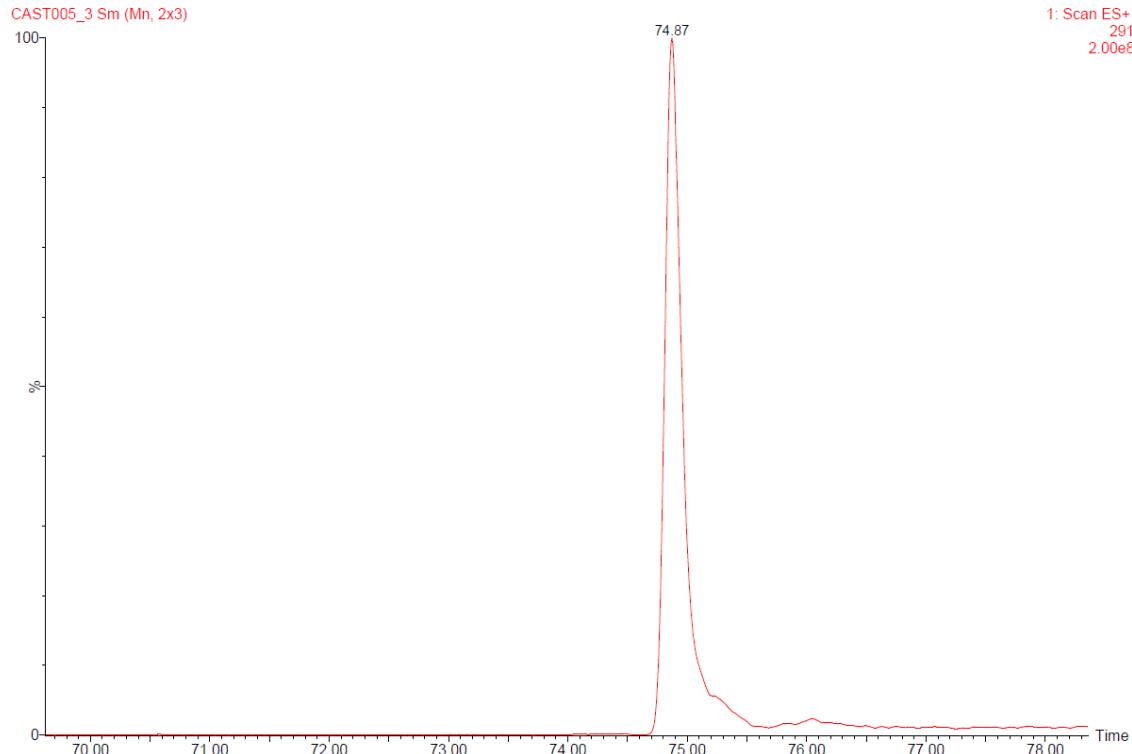
**Figure S1.** LC-MS of Chestnut peels extract, DAD chromatograms. a) sample (obtained as b), re-irradiated at 220 °C; b) extract at 150°C, 30 min.



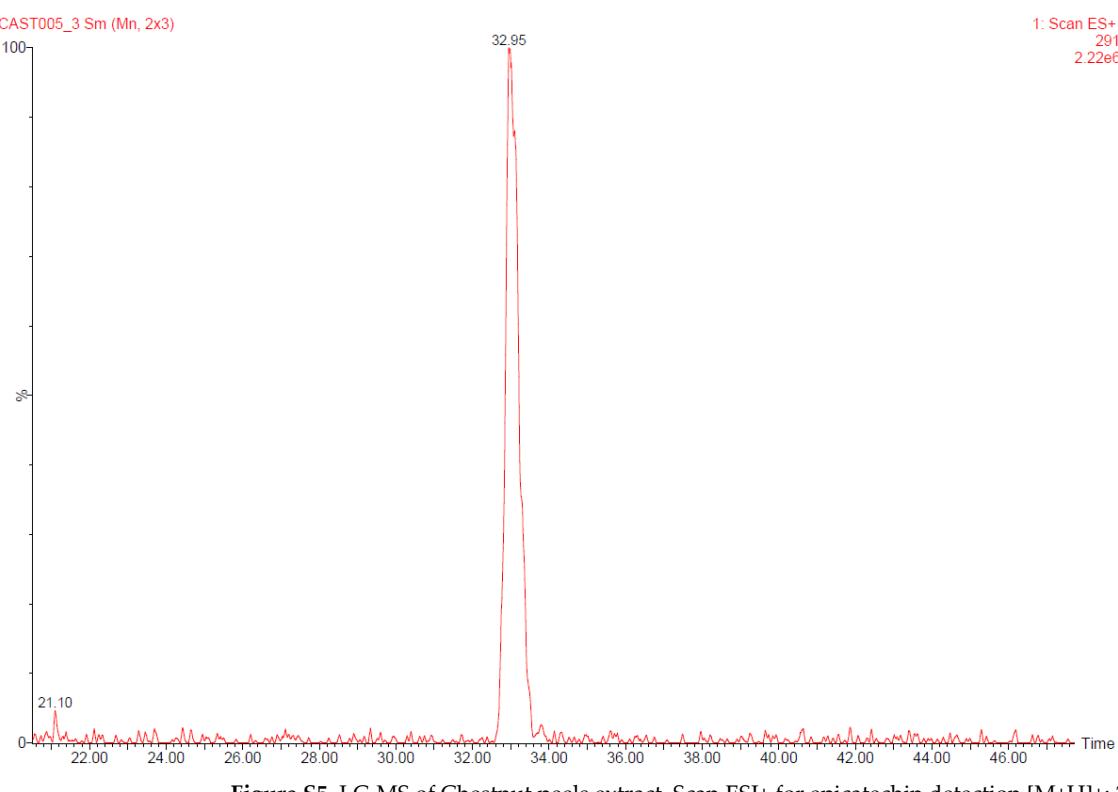
**Figure S2.** LC-MS of Chestnut peels extract re-irradiated at 220 °C. Scan ESI+ for pyrogallo detection [M+H]<sup>+</sup>:127.11 and relative DAD chromatogram.



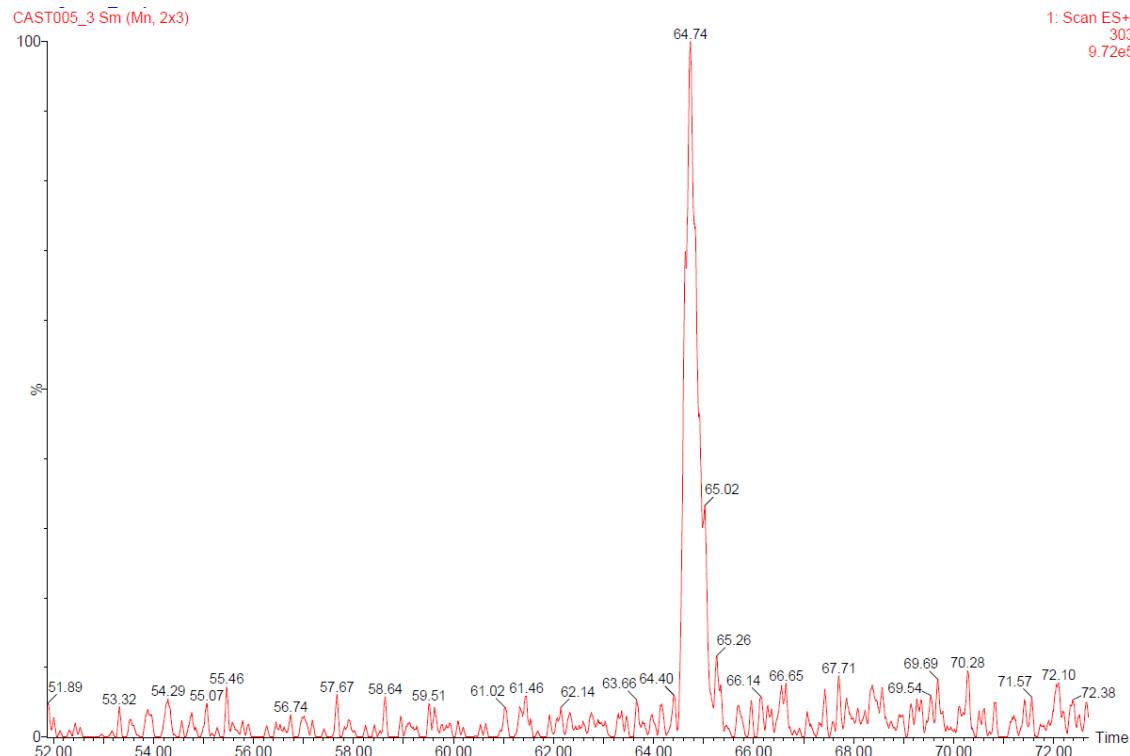
**Figure S3.** LC-MS of Chestnut peels extract. Scan ESI+ for gallic acid detection  $[M+H]^+$ : 171 m/z.



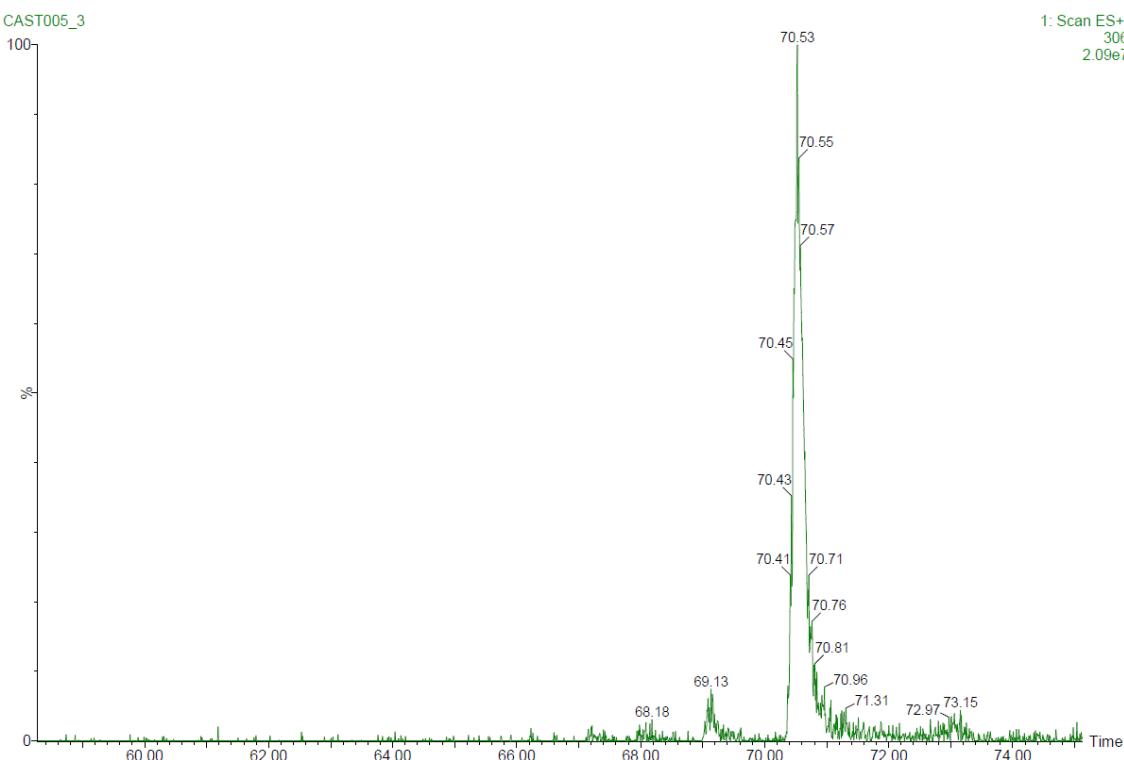
**Figure S4.** LC-MS of Chestnut peels extract. Scan ESI+ for catechin detection  $[M+H]^+$ : 291 m/z.



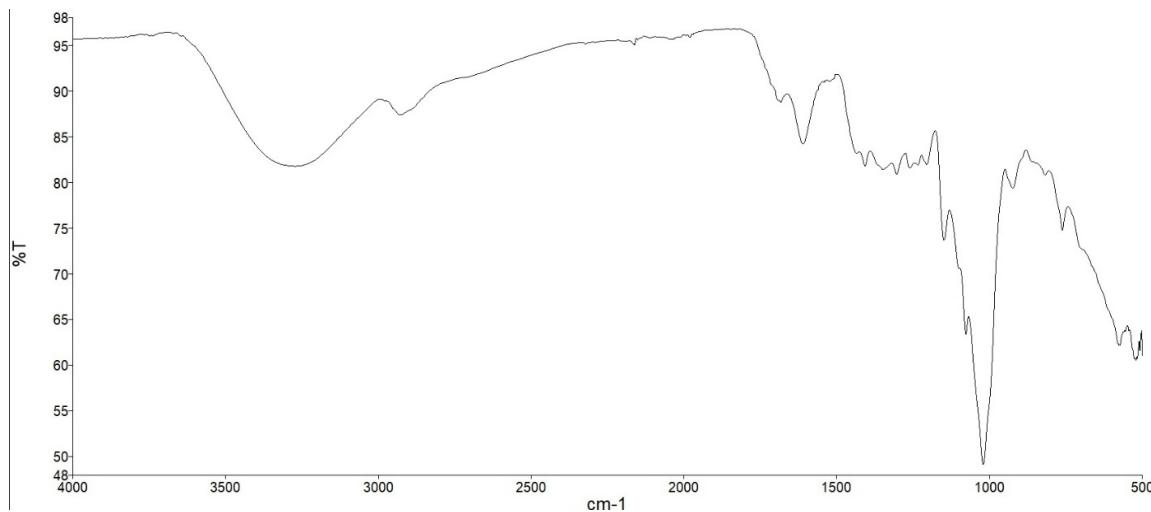
**Figure S5.** LC-MS of Chestnut peels extract. Scan ESI+ for epicatechin detection  $[M+H]^+$ : 291 m/z.



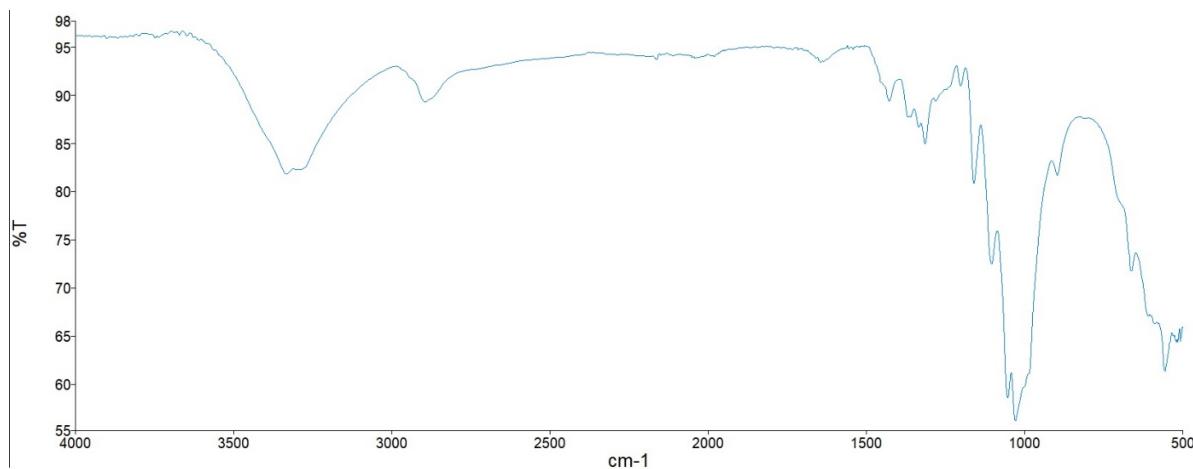
**Figure S6.** LC-MS of Chestnut peels extract. Scan ESI+ for ellagic acid detection  $[M+H]^+$ : 303 m/z.



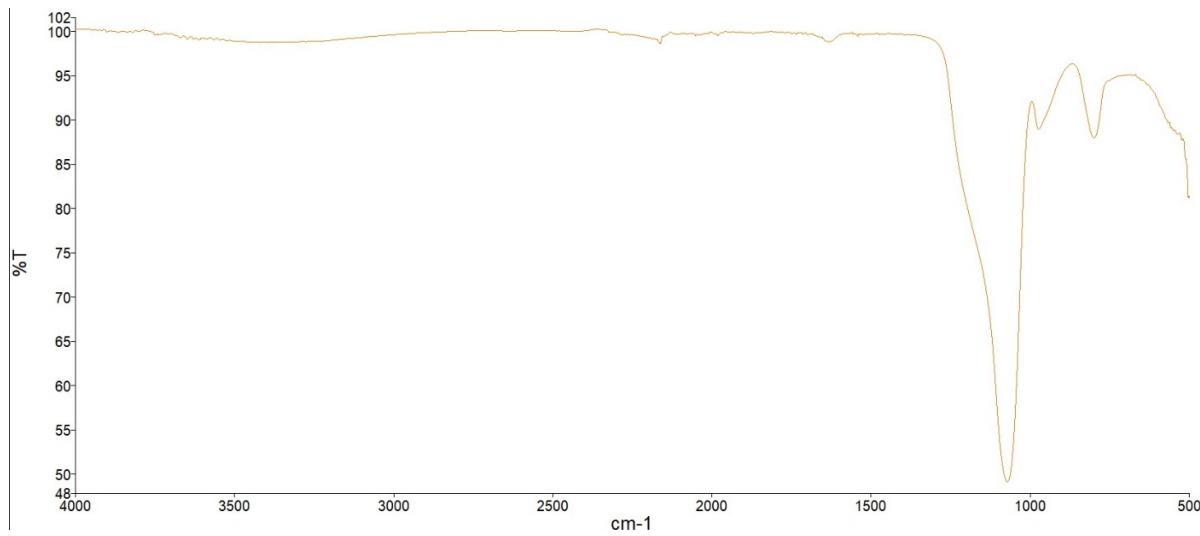
**Figure S7.** LC-MS of Chestnut peels extract. Scan ESI+ for (epi)gallocatechin detection  $[M+H]^+$ : 306 m/z.



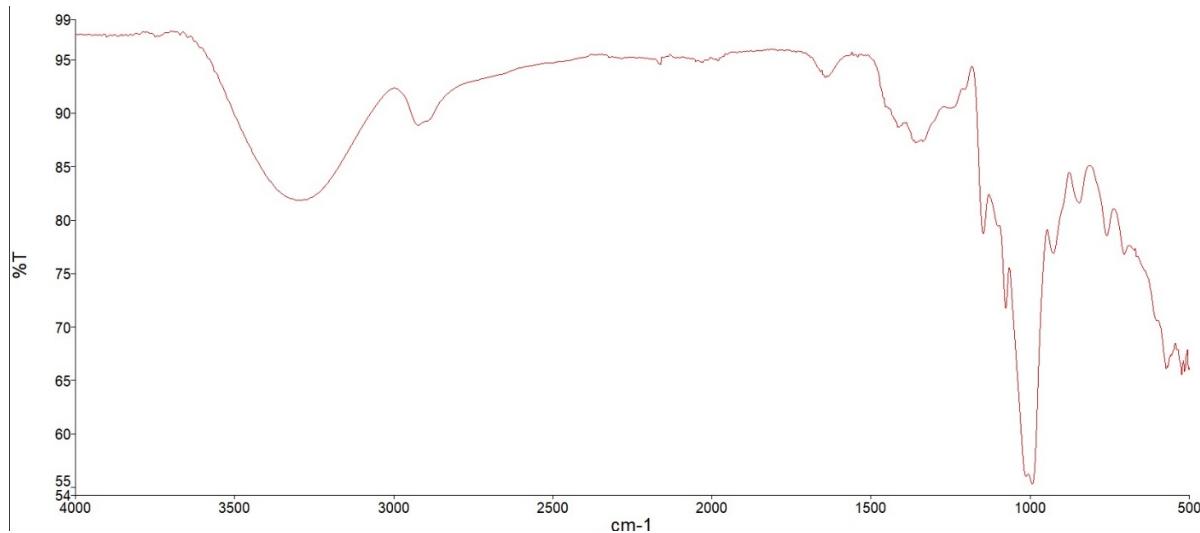
**Figure S8.** ATR: Chestnut extract.



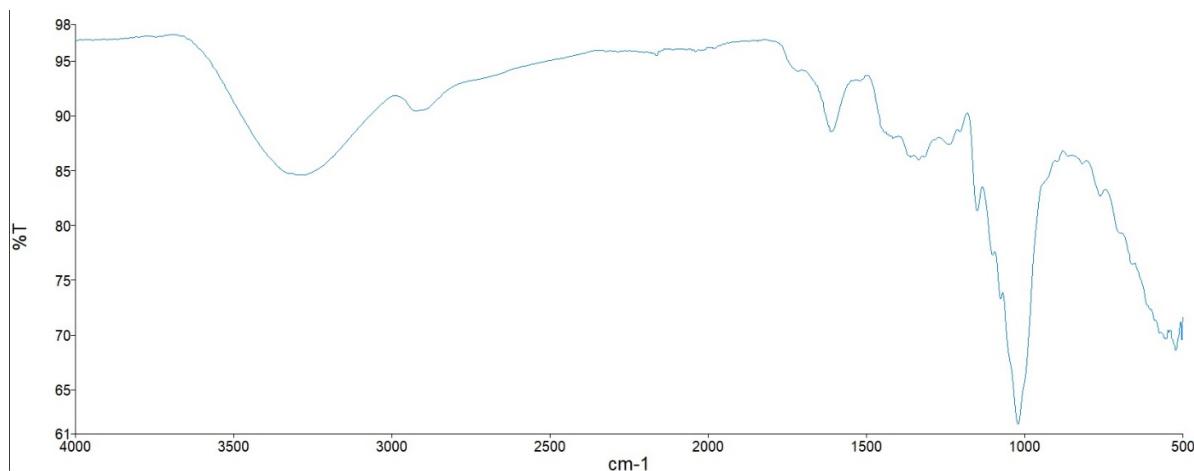
**Figure S9.** ATR: Avicell®.



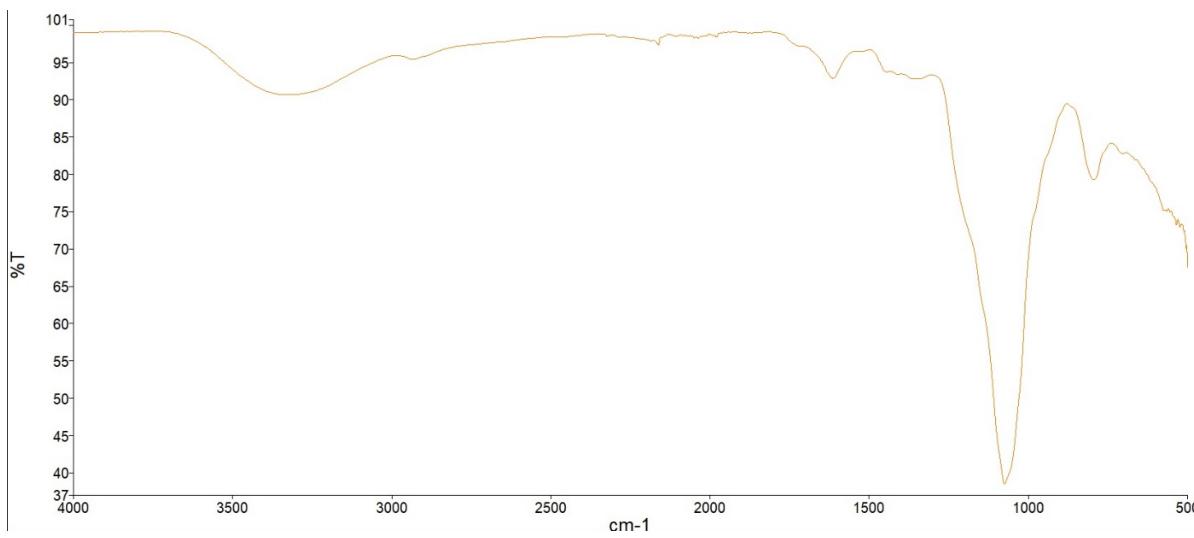
**Figure S10.** ATR: Syloid®.



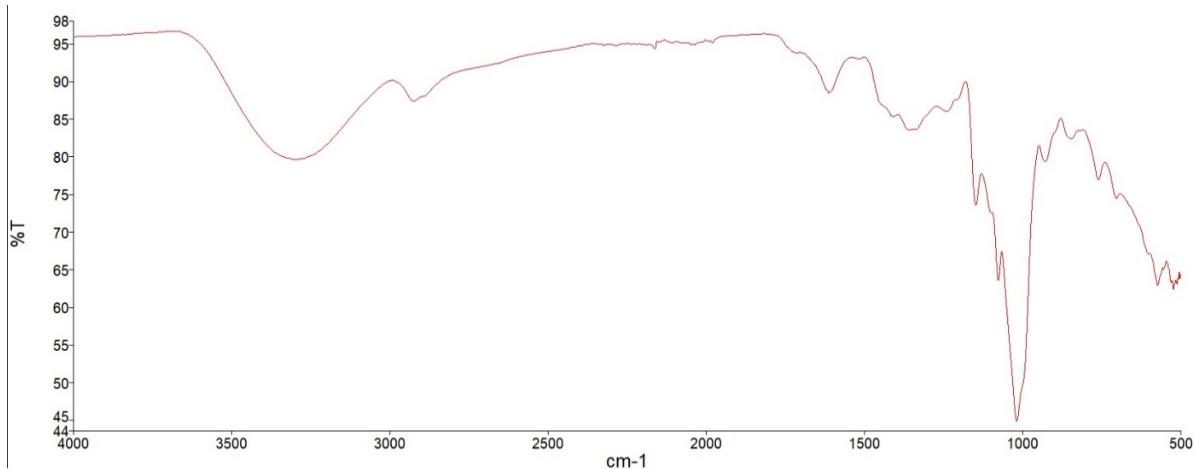
**Figure S11.** ATR: Maltodextrin.



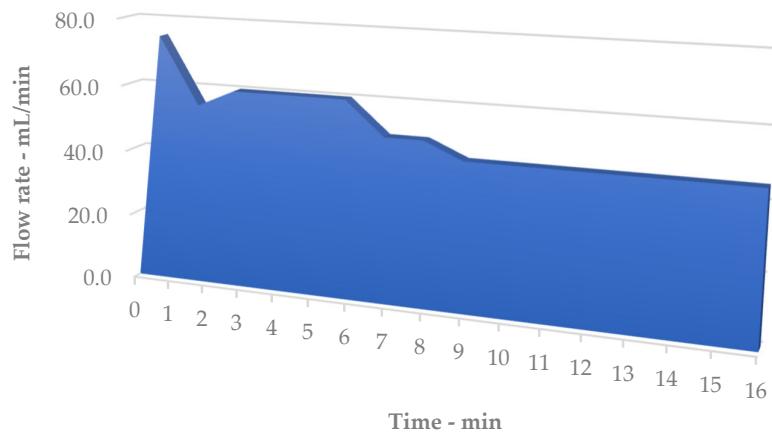
**Figure S12.** ATR: Formulate chestnut extract/Avicell®.



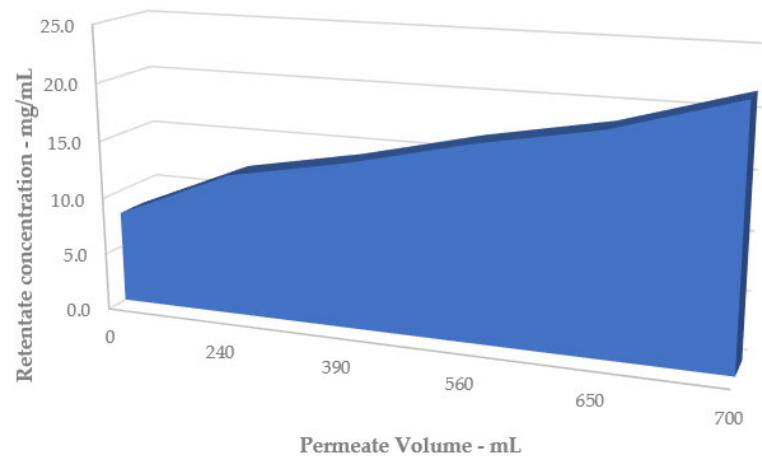
**Figure S13.** ATR: Formulate chestnut extract/Syloid®.



**Figure S14.** ATR: Formulate chestnut extract/Maltodextrin.



**Figure S15.** Ultrafiltration of Chestnut extract: process flow rate.



**Figure S16.** Nanofiltration of Chestnut extract: process concentration rate depending on permeate volume.