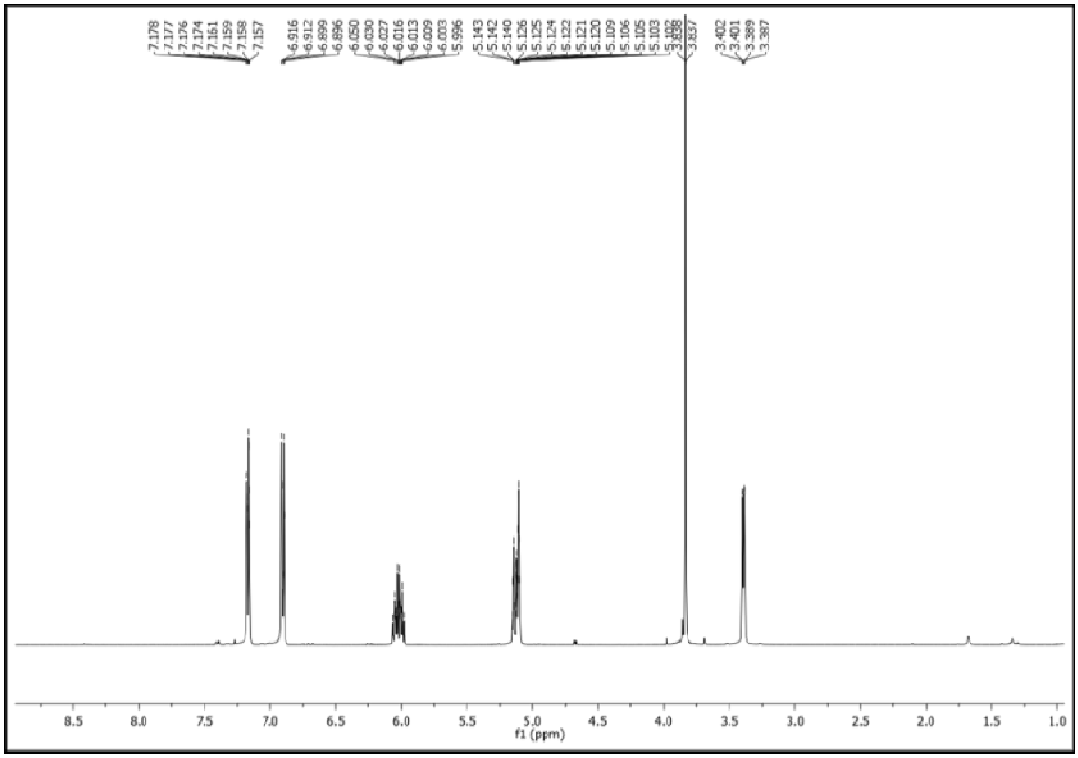
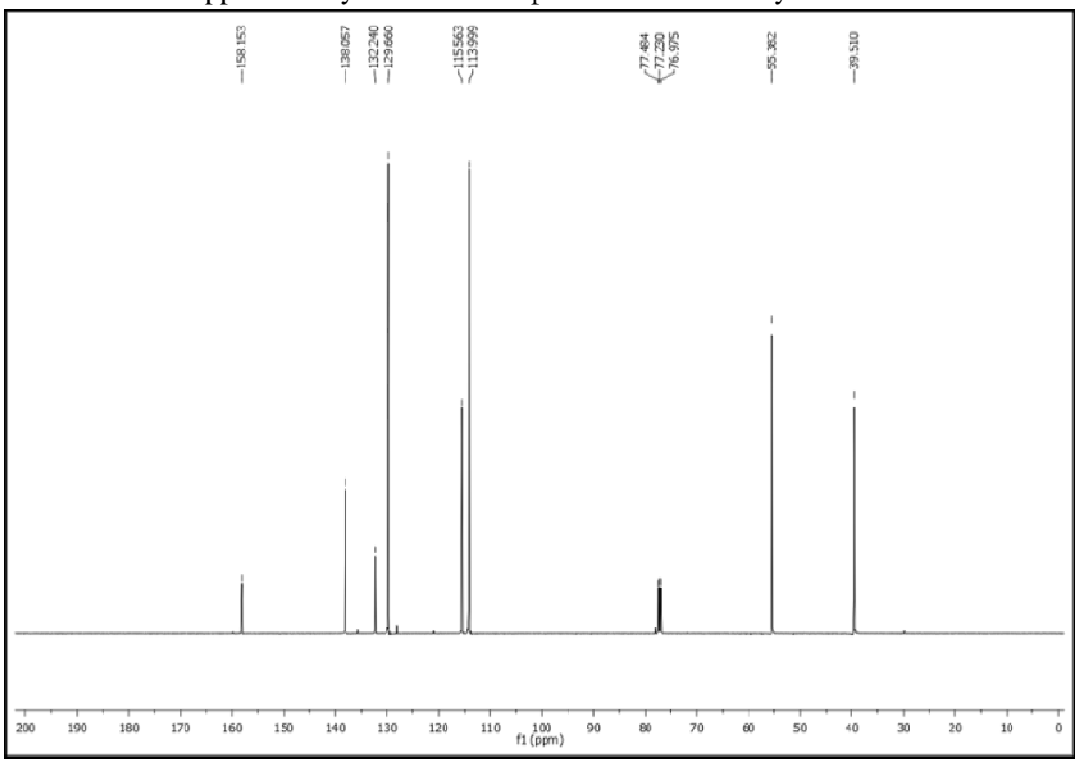
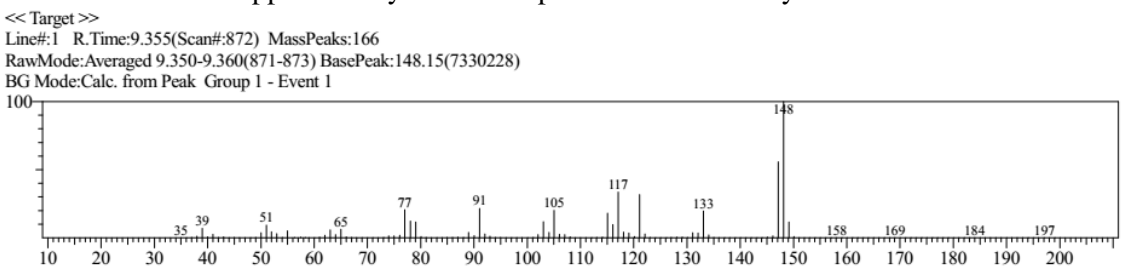
Supplementary 1 - ^{1}HNMR spectrum of the methyl chavicol



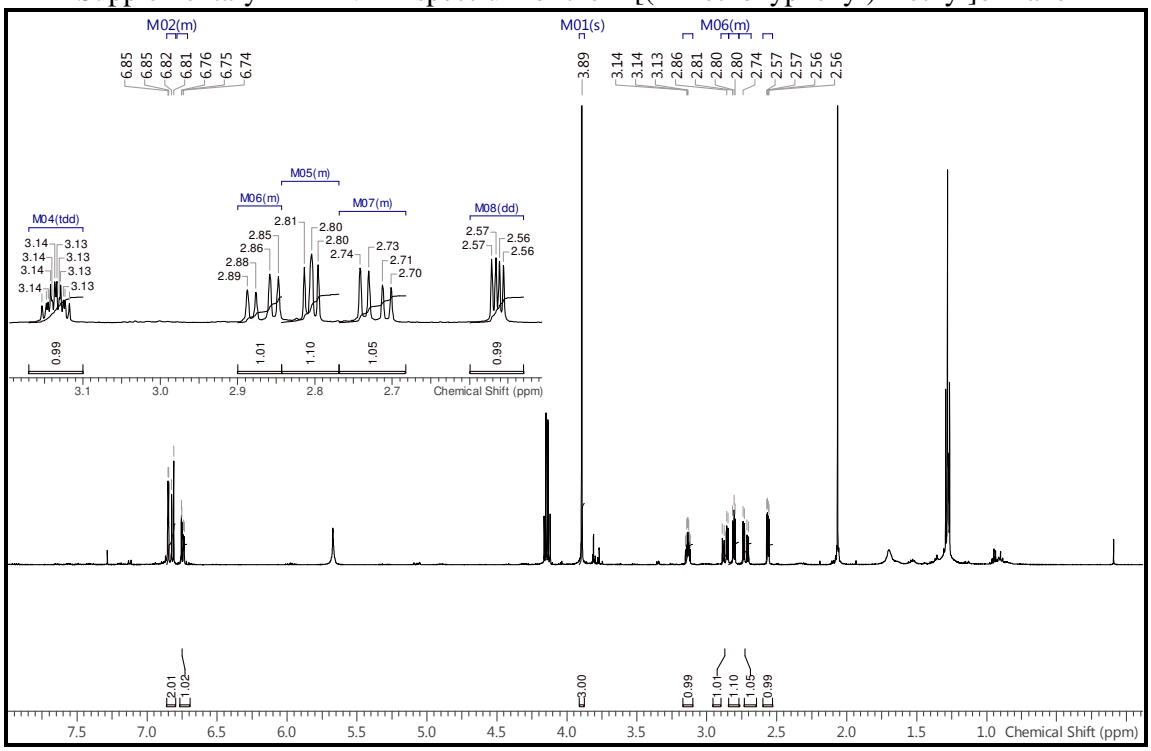
Supplementary 2 - ^{13}CNMR spectrum of the methyl chavicol



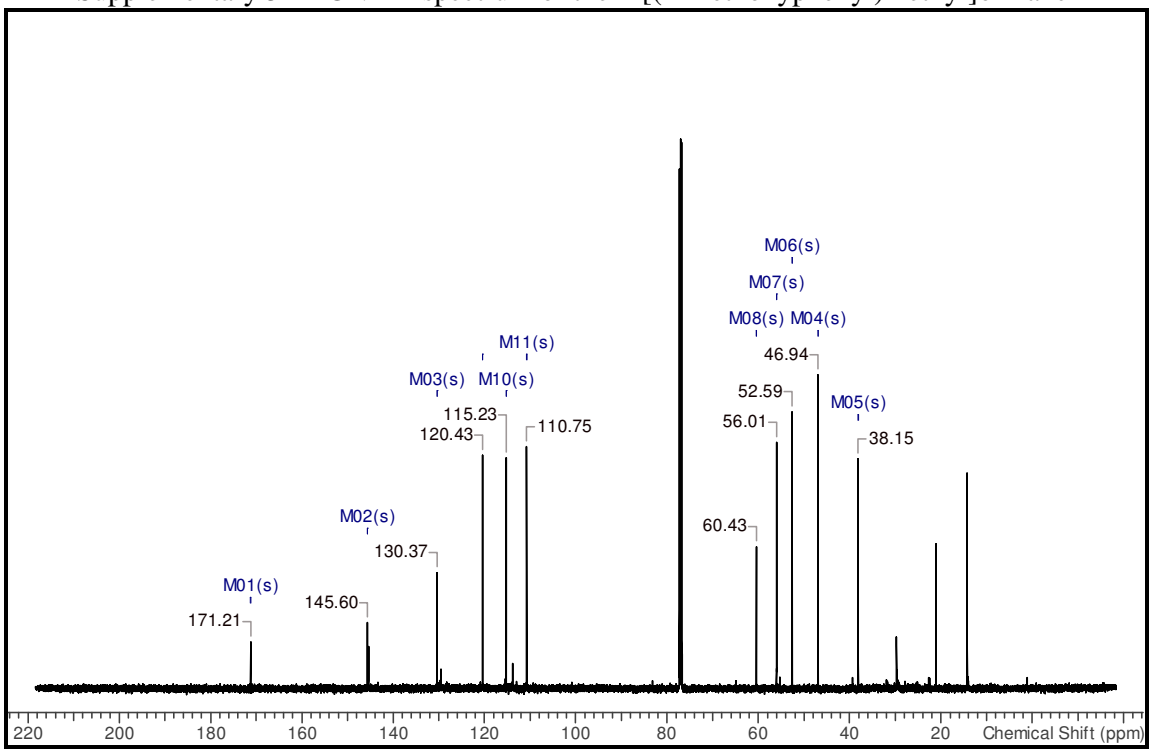
Supplementary 3 - Mass Spectrum of the methyl chavicol



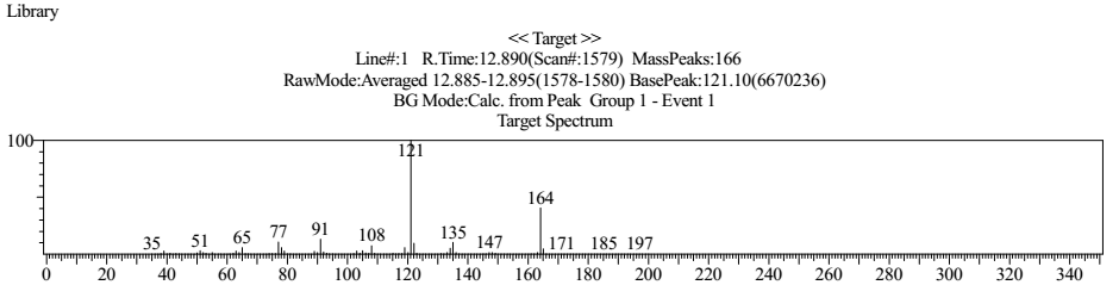
Supplementary 4 - ^{1}HNMR spectrum of the 2-[(4-methoxyphenyl) methyl]oxirane



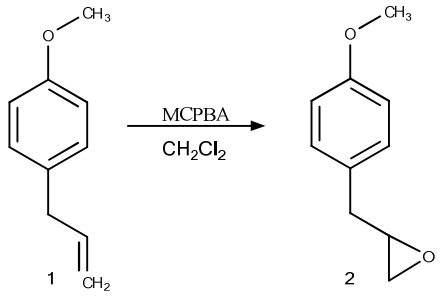
Supplementary 5 - ^{13}CNMR spectrum of the 2-[(4-methoxyphenyl)methyl]oxirane



Supplementary 6 - Mass spectrum of the 2-[(4-methoxyphenyl)methyl]oxirane



Supplementary 7 - Physico-chemical properties and spectral data of the 2-[(4-methoxyphenyl)methyl]oxirane



Physical Appearance: brown oily liquid

M.F.: $C_{10}H_{12}O_2$

M.M.: 164.204 $g.mol^{-1}$

Yield: 75%

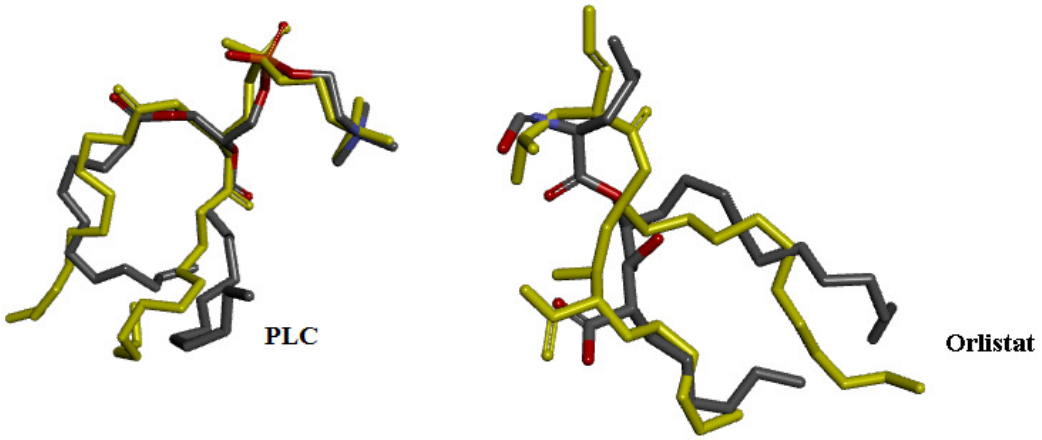
Purity (GC): 99%

^{1}HRMN, 500Hz, ($CDCl_3$): δ (ppm): 6.85 (d, 2H, J = 2.14 Hz); 6.74 (d, 2H, J = 2.14 Hz); 3.89 (s, 3H); 3.14 (tdd, 1H, J = 5.53, 5.53, 3.89, 2.75 Hz); 2.70 (m, 3H); 2.56 (dd, 1H, J = 5.04, 2,59 Hz) and 2.11 (m, 3H).

^{13}CRMN, 75Hz, ($CDCl_3$): δ (ppm): 171.395; 145.782; 145.608; 130.553; 120.612; 115.412; 110.935; 60.610; 56.193 and 52.774.

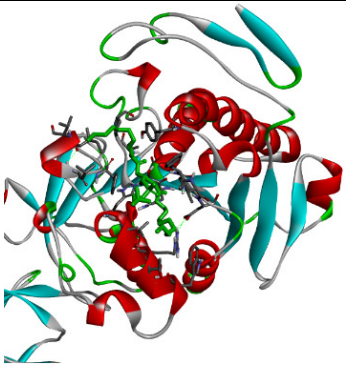
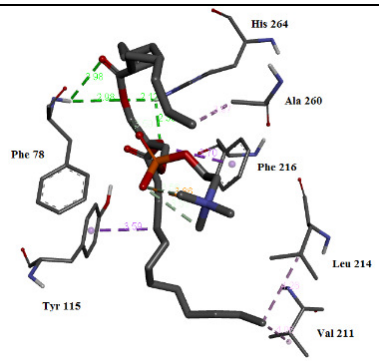
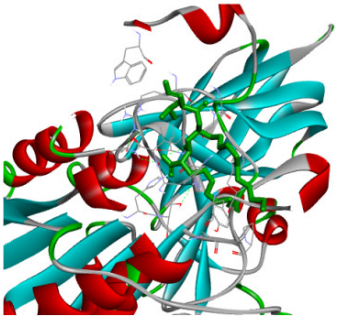
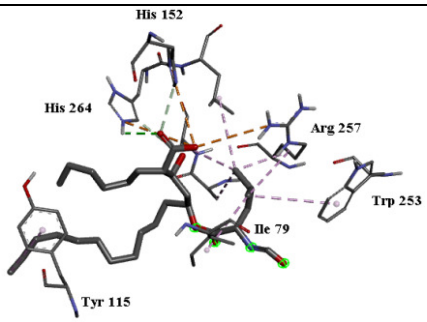
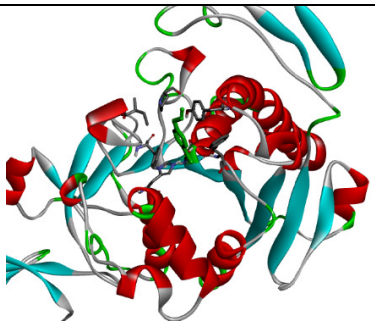
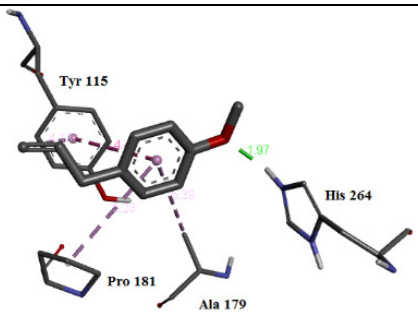
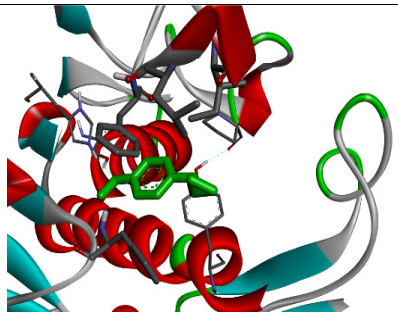
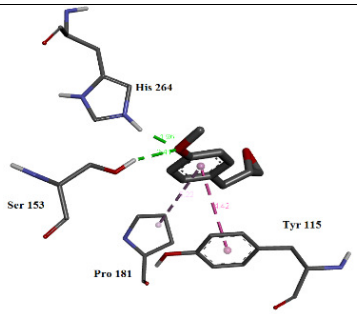
MS: m/z = 164 (M+);147; 135; 121; 108; 91; 77 and 65.

Supplementary 8 - Redocking of the crystallographic ligands PLC and orlistat with RMSD 1.3232 Å and 1.84 Å, respectively.



PLC: diundecylphosphatidylcholine

Supplementary 9 - Molecular orientations of crystallographic ligands at the pancreatic lipase binding site.

Ligands	Molecular interactions between ligands and pancreatic lipase	
	Three-dimensional structure	Aminoacids residues that formed binding site and main interactions
PLC		
Orlistat		
MC		
MPMO		

PLC: diundecylphosphatidylcholine; MC: methyl chavicol; MPMO: 2-[(4-methoxyphenyl)methyl]oxirane.