



**Additional file 3** Comparison of 20:4(n-6) oxidation products of LiLOX N702T/F703V mutant at different pH. **A-D.** Regioisomers separated by SP-HPLC in n-hexane:isopropanol:TFA 100:1:0.1 (v/v/v). 20 mM Bis-TRIS propane was used as buffer with 100  $\mu$ M of 20:4 (n-6). Reaction happened at pH **A.** 8.0. **B.** 7.5. **C.** 7.0. **D.** 6.5. Chromatograms of CP-HPLC in n-hexane:isopropanol:TFA 100:2:0.1 (v/v/v) is given for all 4 HETEs obtained after reaction at pH7.5 in each corresponding box.