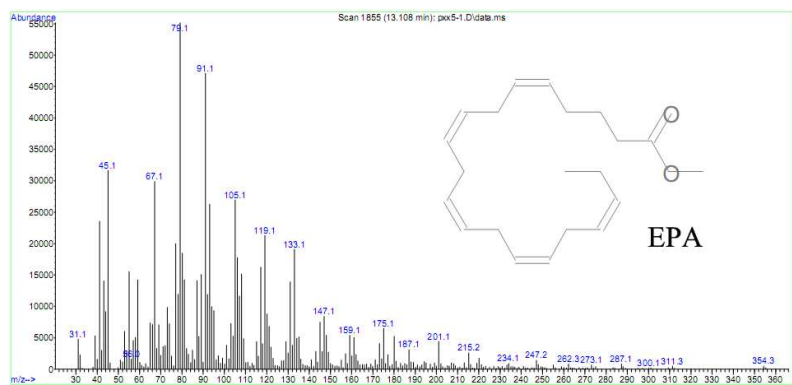


## Supporting Information

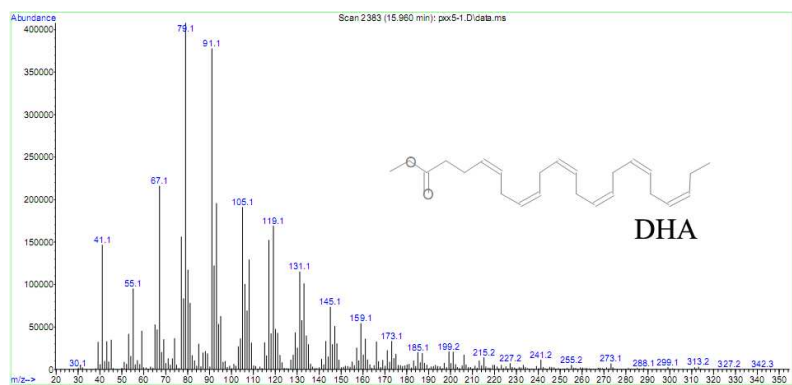
The chromatogram displays Abundance on the y-axis (ranging from 0 to 1.8e+07) and Time (min) on the x-axis (ranging from 4.50 to 21.00). The title is 'TIC: px3-1.D\data.ms'. Two major peaks are identified: EPA at 12.489 minutes and DHA at 15.957 minutes. Other labeled peaks include 4.271, 6.099, 7.034, 8.563, 8.567, 8.569, 8.571, 8.573, 8.575, 8.577, 8.579, 8.581, 8.583, 8.585, 8.587, 8.589, 8.591, 8.593, 8.595, 8.597, 8.599, 8.601, 8.603, 8.605, 8.607, 8.609, 8.611, 8.613, 8.615, 8.617, 8.619, 8.621, 8.623, 8.625, 8.627, 8.629, 8.631, 8.633, 8.635, 8.637, 8.639, 8.641, 8.643, 8.645, 8.647, 8.649, 8.651, 8.653, 8.655, 8.657, 8.659, 8.661, 8.663, 8.665, 8.667, 8.669, 8.671, 8.673, 8.675, 8.677, 8.679, 8.681, 8.683, 8.685, 8.687, 8.689, 8.691, 8.693, 8.695, 8.697, 8.699, 8.701, 8.703, 8.705, 8.707, 8.709, 8.711, 8.713, 8.715, 8.717, 8.719, 8.721, 8.723, 8.725, 8.727, 8.729, 8.731, 8.733, 8.735, 8.737, 8.739, 8.741, 8.743, 8.745, 8.747, 8.749, 8.751, 8.753, 8.755, 8.757, 8.759, 8.761, 8.763, 8.765, 8.767, 8.769, 8.771, 8.773, 8.775, 8.777, 8.779, 8.781, 8.783, 8.785, 8.787, 8.789, 8.791, 8.793, 8.795, 8.797, 8.799, 8.801, 8.803, 8.805, 8.807, 8.809, 8.811, 8.813, 8.815, 8.817, 8.819, 8.821, 8.823, 8.825, 8.827, 8.829, 8.831, 8.833, 8.835, 8.837, 8.839, 8.841, 8.843, 8.845, 8.847, 8.849, 8.851, 8.853, 8.855, 8.857, 8.859, 8.861, 8.863, 8.865, 8.867, 8.869, 8.871, 8.873, 8.875, 8.877, 8.879, 8.881, 8.883, 8.885, 8.887, 8.889, 8.891, 8.893, 8.895, 8.897, 8.899, 8.901, 8.903, 8.905, 8.907, 8.909, 8.911, 8.913, 8.915, 8.917, 8.919, 8.921, 8.923, 8.925, 8.927, 8.929, 8.931, 8.933, 8.935, 8.937, 8.939, 8.941, 8.943, 8.945, 8.947, 8.949, 8.951, 8.953, 8.955, 8.957, 8.959, 8.961, 8.963, 8.965, 8.967, 8.969, 8.971, 8.973, 8.975, 8.977, 8.979, 8.981, 8.983, 8.985, 8.987, 8.989, 8.991, 8.993, 8.995, 8.997, 8.999, 9.001, 9.003, 9.005, 9.007, 9.009, 9.011, 9.013, 9.015, 9.017, 9.019, 9.021, 9.023, 9.025, 9.027, 9.029, 9.031, 9.033, 9.035, 9.037, 9.039, 9.041, 9.043, 9.045, 9.047, 9.049, 9.051, 9.053, 9.055, 9.057, 9.059, 9.061, 9.063, 9.065, 9.067, 9.069, 9.071, 9.073, 9.075, 9.077, 9.079, 9.081, 9.083, 9.085, 9.087, 9.089, 9.091, 9.093, 9.095, 9.097, 9.099, 9.101, 9.103, 9.105, 9.107, 9.109, 9.111, 9.113, 9.115, 9.117, 9.119, 9.121, 9.123, 9.125, 9.127, 9.129, 9.131, 9.133, 9.135, 9.137, 9.139, 9.141, 9.143, 9.145, 9.147, 9.149, 9.151, 9.153, 9.155, 9.157, 9.159, 9.161, 9.163, 9.165, 9.167, 9.169, 9.171, 9.173, 9.175, 9.177, 9.179, 9.181, 9.183, 9.185, 9.187, 9.189, 9.191, 9.193, 9.195, 9.197, 9.199, 9.201, 9.203, 9.205, 9.207, 9.209, 9.211, 9.213, 9.215, 9.217, 9.219, 9.221, 9.223, 9.225, 9.227, 9.229, 9.231, 9.233, 9.235, 9.237, 9.239, 9.241, 9.243, 9.245, 9.247, 9.249, 9.251, 9.253, 9.255, 9.257, 9.259, 9.261, 9.263, 9.265, 9.267, 9.269, 9.271, 9.273, 9.275, 9.277, 9.279, 9.281, 9.283, 9.285, 9.287, 9.289, 9.291, 9.293, 9.295, 9.297, 9.299, 9.301, 9.303, 9.305, 9.307, 9.309, 9.311, 9.313, 9.315, 9.317, 9.319, 9.321, 9.323, 9.325, 9.327, 9.329, 9.331, 9.333, 9.335, 9.337, 9.339, 9.341, 9.343, 9.345, 9.347, 9.349, 9.351, 9.353, 9.355, 9.357, 9.359, 9.361, 9.363, 9.365, 9.367, 9.369, 9.371, 9.373, 9.375, 9.377, 9.379, 9.381, 9.383, 9.385, 9.387, 9.389, 9.391, 9.393, 9.395, 9.397, 9.399, 9.401, 9.403, 9.405, 9.407, 9.409, 9.411, 9.413, 9.415, 9.417, 9.419, 9.421, 9.423, 9.425, 9.427, 9.429, 9.431, 9.433, 9.435, 9.437, 9.439, 9.441, 9.443, 9.445, 9.447, 9.449, 9.451, 9.453, 9.455, 9.457, 9.459, 9.461, 9.463, 9.465, 9.467, 9.469, 9.471, 9.473, 9.475, 9.477, 9.479, 9.481, 9.483, 9.485, 9.487, 9.489, 9.491, 9.493, 9.495, 9.497, 9.499, 9.501, 9.503, 9.505, 9.507, 9.509, 9.511, 9.513, 9.515, 9.517, 9.519, 9.521, 9.523, 9.525, 9.527, 9.529, 9.531, 9.533, 9.535, 9.537, 9.539, 9.541, 9.543, 9.545, 9.547, 9.549, 9.551, 9.553, 9.555, 9.557, 9.559, 9.561, 9.563, 9.565, 9.567, 9.569, 9.571, 9.573, 9.575, 9.577, 9.579, 9.581, 9.583, 9.585, 9.587, 9.589, 9.591, 9.593, 9.595, 9.597, 9.599, 9.601, 9.603, 9.605, 9.607, 9.609, 9.611, 9.613, 9.615, 9.617, 9.619, 9.621, 9.623, 9.625, 9.627, 9.629, 9.631, 9.633, 9.635, 9.637, 9.639, 9.641, 9.643, 9.645, 9.647, 9.649, 9.651, 9.653, 9.655, 9.657, 9.659, 9.661, 9.663, 9.665, 9.667, 9.669, 9.671, 9.673, 9.675, 9.677, 9.679, 9.681, 9.683, 9.685, 9.687, 9.689, 9.691,

Chromatogram showing abundance versus time (TIC: poc5-1.D\data.ms). The y-axis represents Abundance from 0 to 8,000,000. The x-axis represents Time from 4.00 to 21.00 minutes. Major peaks are labeled with retention times: 4.271, 6.092, 7.033, 7.984, 8.231, 9.098, 9.562, 9.628, 10.374, 10.641, 10.940, 12.278, 12.468, 12.871, 13.107, 13.390, 14.674, 14.982, 15.469, 15.841 (labeled DHA), 16.335, 16.535, 17.357, and 18.847. A peak at 12.468 is labeled EPA.

(A)



(B)



(C)

**Supplementary Figure 2 Quantitative (A) and qualitative (B, C) analysis of fatty acid in glyceride fraction after hydrolysis by displayed lipase**