

## Supporting Information

### Substrate specific inhibition constants for phospholipase A<sub>2</sub> acting on unique phospholipid substrates in mixed micelles and membranes using lipidomics

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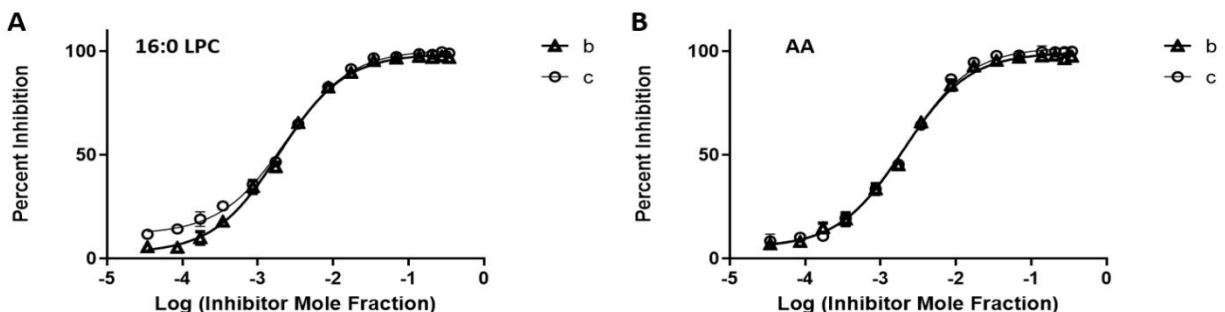
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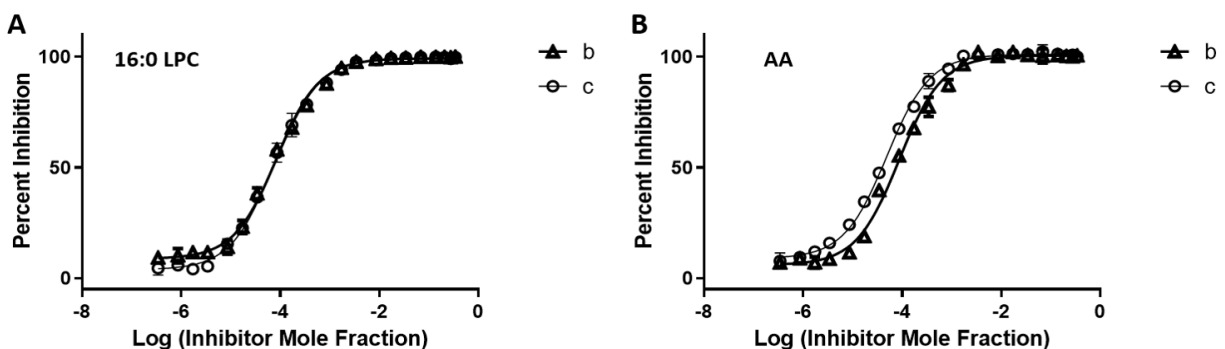
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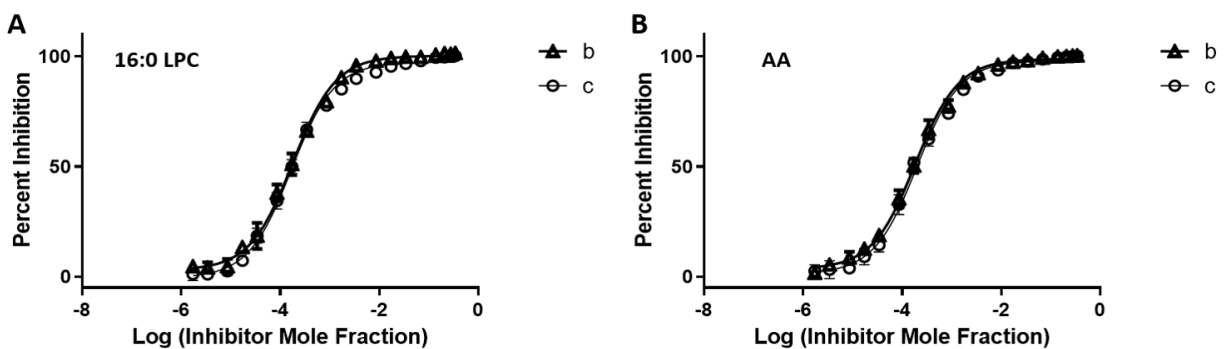
Two additional dose-response inhibition curves for each of the lipidomics assays (b and c) were performed independently from those shown in Fig. 2A and B – 4A and B and are provided in Fig. S1A and B – S3A and B. The results of all three determinations are given in Table 2.



**Figure S1.** Dose-response inhibition curves for pyrrophenone using PAPC substrate. (A) The activity of cPLA<sub>2</sub> was measured by detecting 16:0 LPC in positive ion mode and (B) by detecting free arachidonic acid in negative ion mode.



**Figure S2.** Dose-response inhibition curves for OTFP using PAPC substrate. (A) The activity of iPLA<sub>2</sub> was measured by detecting 16:0 LPC in positive ion mode and (B) by detecting free arachidonic acid in negative ion mode.



**Figure S3.** Dose-response inhibition curves for Ly315920 using PAPC substrate. (A) The activity of sPLA<sub>2</sub> was measured by detecting 16:0 LPC in positive ion mode and (B) by detecting free arachidonic acid in negative ion mode.