

**Supplemental Figure 1.** MALDI MS/MS for  $PGE_2$  and  $PGE_2$ -G. Derivatized PGE2 and PGE2-G ions were subjected to collisionally activated dissociation in a linear ion trap in order to determine the optimal transitions for SRM analysis. The fragments chosen for MS<sup>2</sup> of PGE-2 and PGE2-G were m/z = 389.3 and 463.3 (indicated by  $\bigstar$ ), respectively. These signals were chosen because they were unique and gave the largest intensity which allowed for accurate quantification and good sensitivity. Full scan and MS<sup>2</sup> spectra for PGE2-d4 were also acquired (data not shown) and showed similar intensity and fragmentation as PGE2