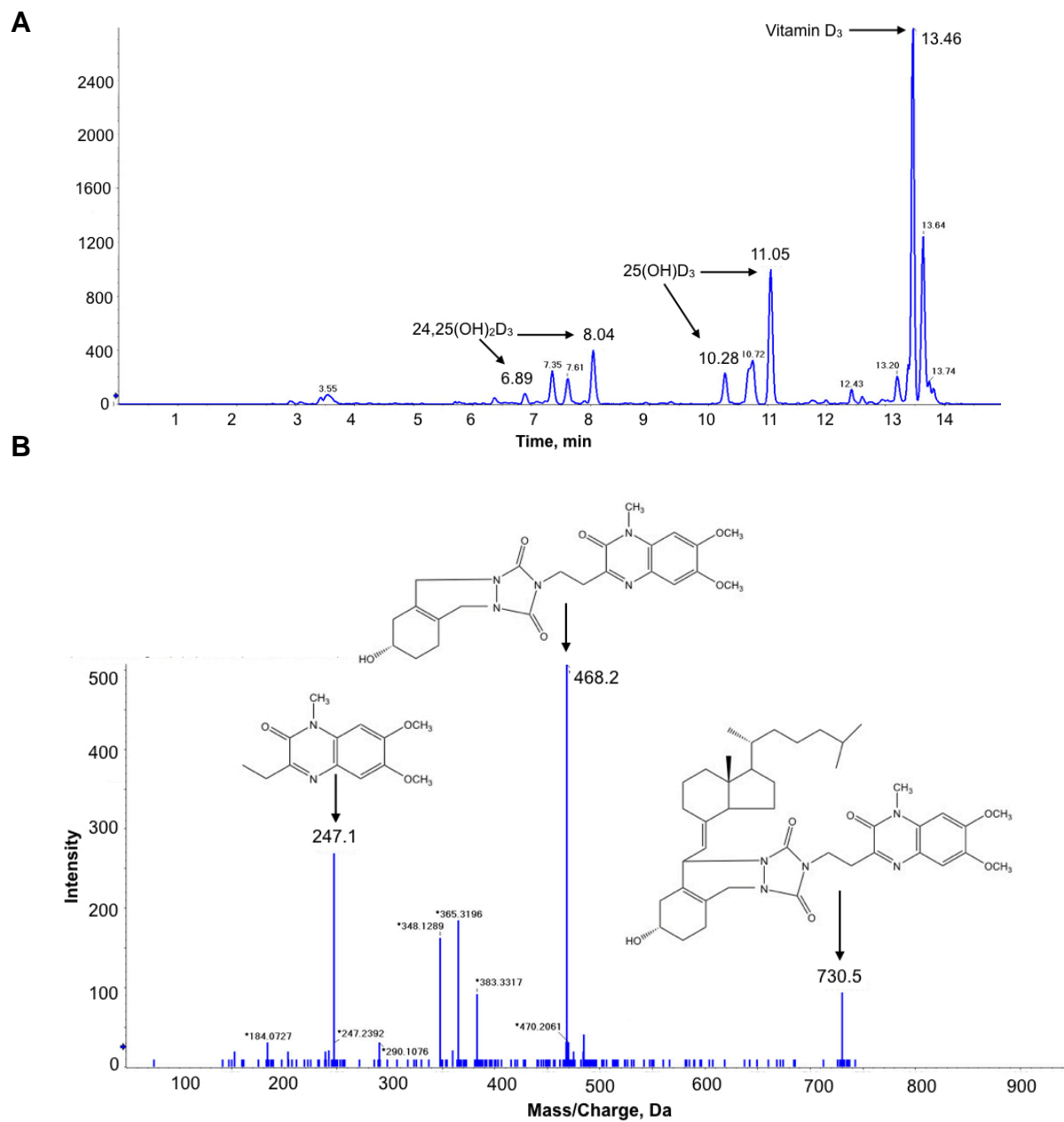


Supplementary Table 1. RT-PCR primer sequences.

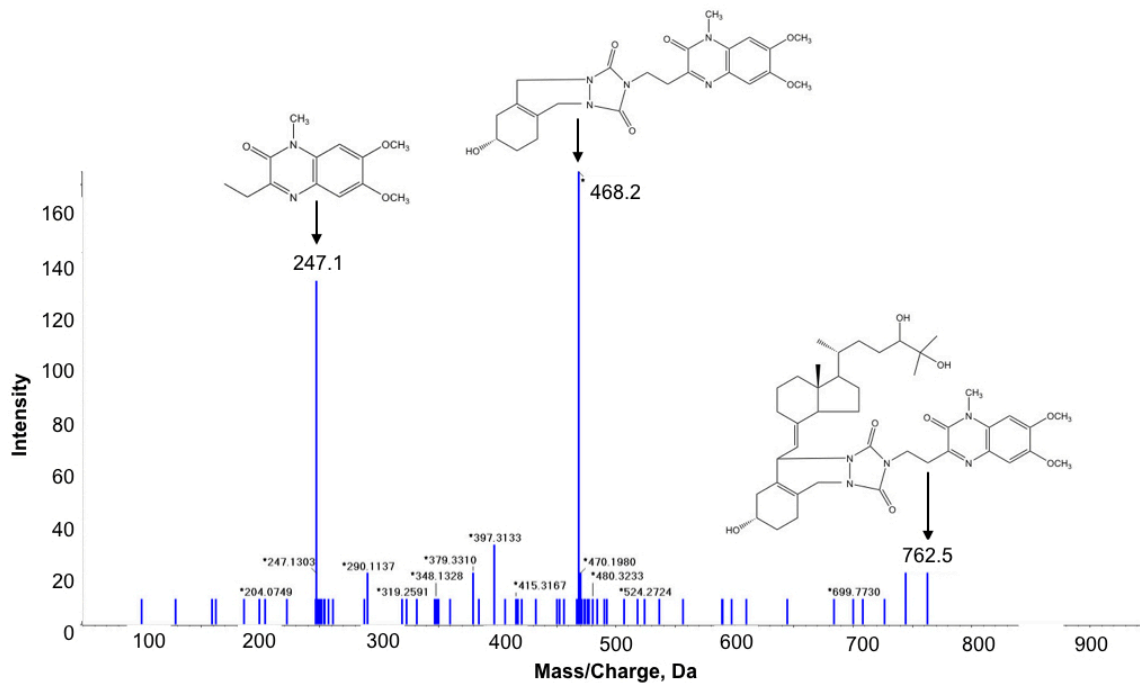
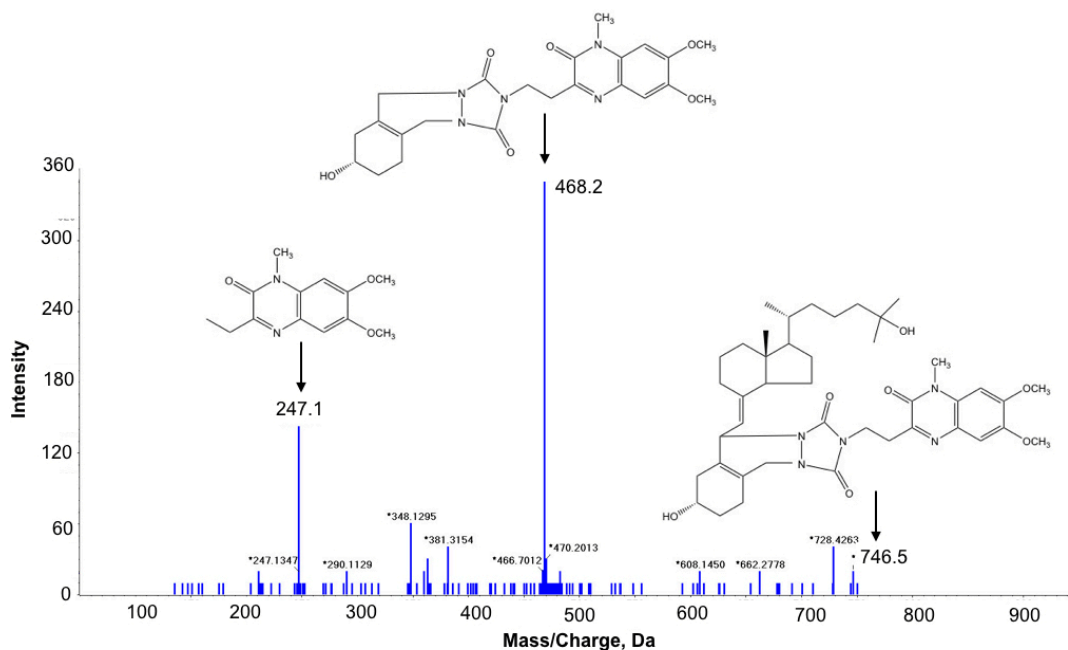
HPRT	F: 5'-CAG ACT GAA GAG CTA TGG TAA TG-3' R: 5' CCA GTG TCA ATT ATA TCT TCC AC-3'
Cyp2R1	F: 5'-TTT GTC AAC ATC TGC T-3' R: 5'-TGC CTC CAA GAT CTA AAC TGA AA-3'
Cyp27A1	F: 5'-CCT CAC CTA TGG GAT CTT CAT C-3' R: 5'-TTT AAC GCA TCC GTG TAG AGC-3'
Cyp24A1	F: 5'-ACC CCC AAG GTC CGT GAC ATC-3' R: 5'-CCA GTT GGG TCC AGG TAA GG-3'
Cyp27B1	F: 5'-GAC CAT ATT GGC CCG TAC C-3' R: 5'-CAG CTT GGC TGA ACT CT-3'
VDR	F: 5'-CTG CAC CTC CTC ATC TGT GA-3' R: 5'-CCC CTT CAA TGG AGA TTG C-3'
TNF- α	F: 5'-TGG GAG TAG ACA AGG TAC AAC CC-3' R: 5'-CAT CTT CTC AAA ATT CGA GTG ACA A-3'
IL-1 β	F: 5'-AGT TGA CGG ACC CCA AAA G-3' R: 5'-AGC TGG ATC CTC TCA TCA GG-3'
IL-6	F: 5'-GCT ACC AAA CTG GAT ATA ATC AGG A-3' R: 5'-CCA GGT AGC TAT GGT ACT CCA GAA-3'
IFN- γ	F: 5'-TGC ATC TTG GCT TGG CAG CTC TTC-3' R: 5'-GGG TTG ACC TCA AAC TTG GCA-3'

Supplementary Figure 1

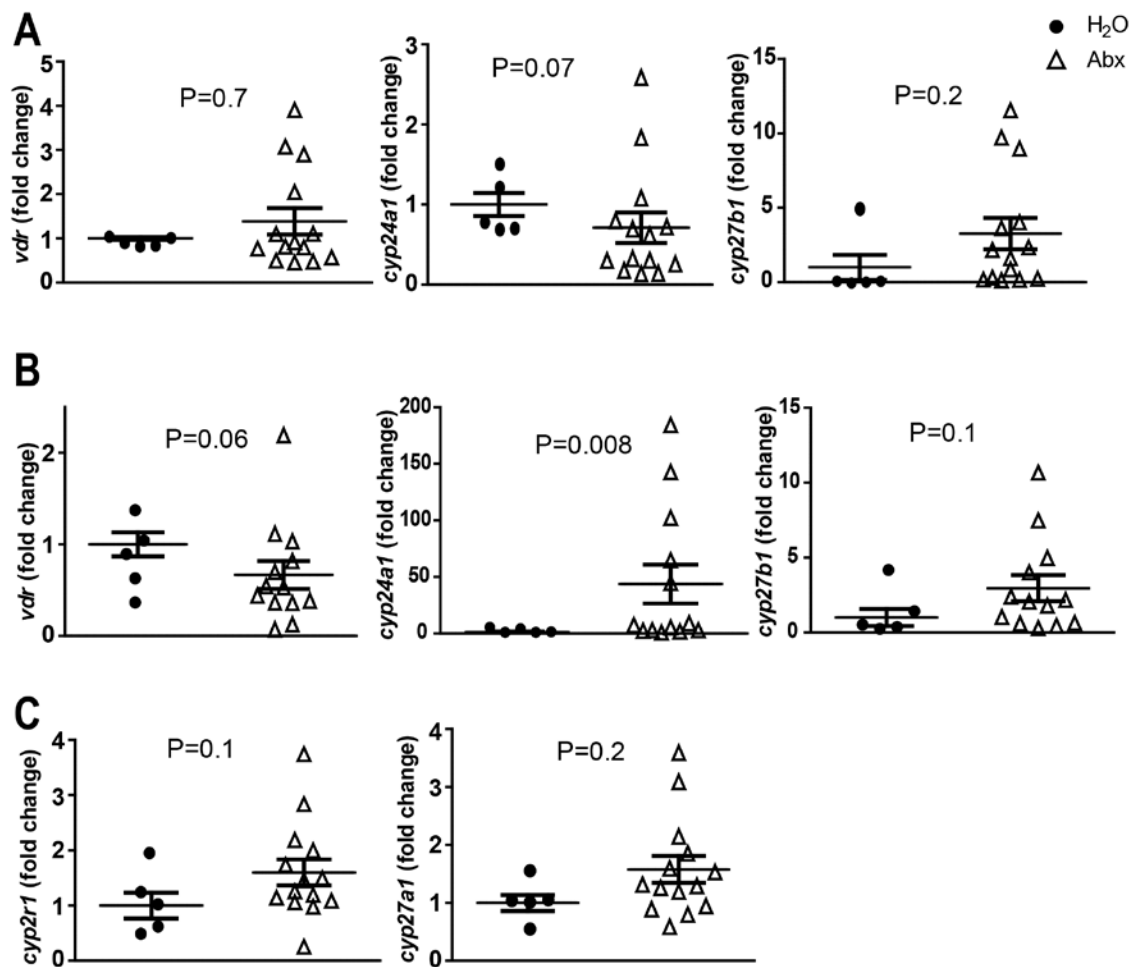


Supplementary Figure 1, continued

B



Supplementary Figure 1. Chromatogram and fragmentation of DMEQ-TAD adducts of vitamin D, 25D, and 24,25D. A) Composite chromatogram of multiple reaction monitoring for vitamin D, 25D, and 24,25D. B) Mass spectra for DMEQ-TAD adducts of vitamin D (730.5- \rightarrow 468.2), 24,25D (746.5- \rightarrow 468.2), and 24,25D (762.5- \rightarrow 468.2), indicating that $m/z=468.2$ is the major fragment of vitamin D, 25D, and 24,25D ions, and $m/z=247.1$ is the fragment of DMEQ-TAD



Supplementary Figure 2. Abx treatment induced *cyp24a1* expression in the colon. Expression of mRNA for *cyp24a1*, *cyp27b1*, and *vdr* in the A) kidney and B) colon. C) Expression of *cyp2r1* and *cyp27a1* in the liver. Values are expressed as fold change of the water group. Values are the mean \pm SEM of a mix of male and female mice in the (n=5) water group, and n=13-14 in the Abx group. Mann-Whitney test was used to test significance.