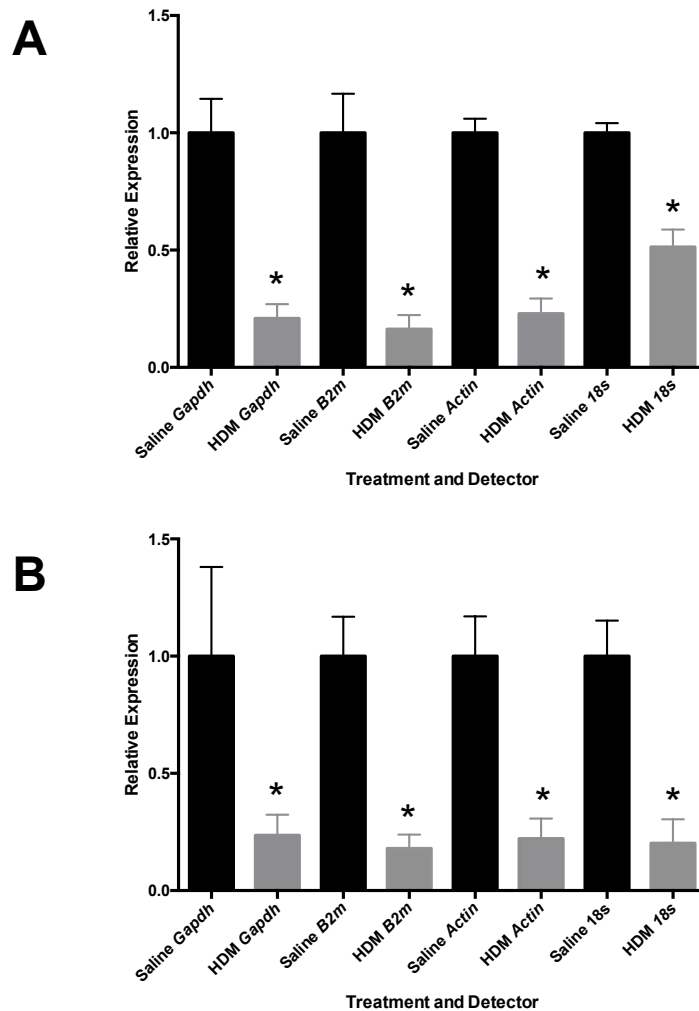


**Supplemental Figure 1.** Comparison of the relative expression of *Gapdh*, *B2m*, *Actin* and *18s* housekeeping genes in lungs from mice treated with Influenza A or saline. The TaqMan® primer/probes (A) and SYBR® Green primer sets (C) show that expression of *Gapdh*, *B2m* and *Actin* is increased in female mice after Influenza A treatment. Similar results were obtained for male mice using TaqMan® primer/probes (B) and SYBR® Green primer sets (D). Data shown are mean  $\pm$  SE; n=6 per group; \*p < 0.05 vs. saline control.

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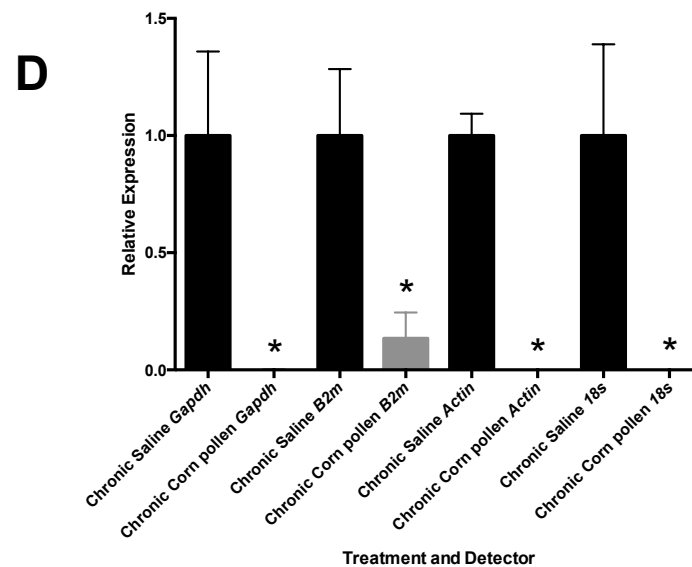
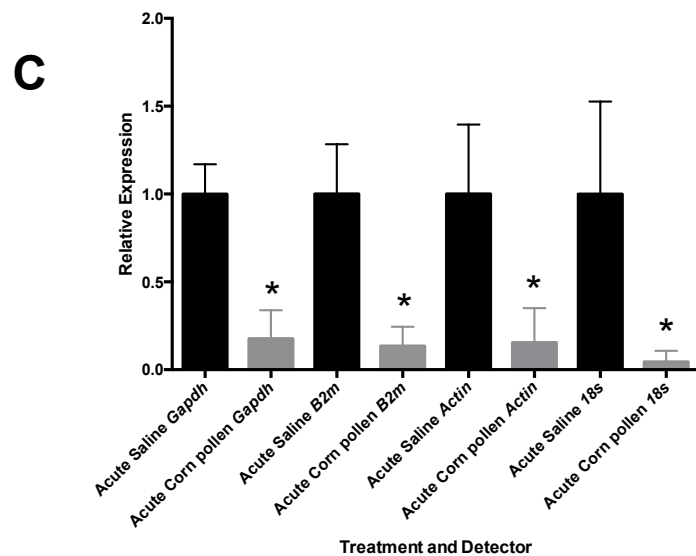
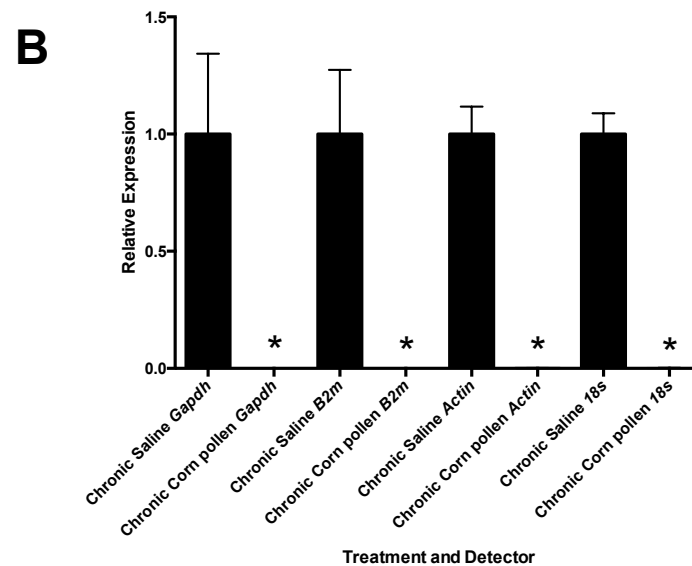
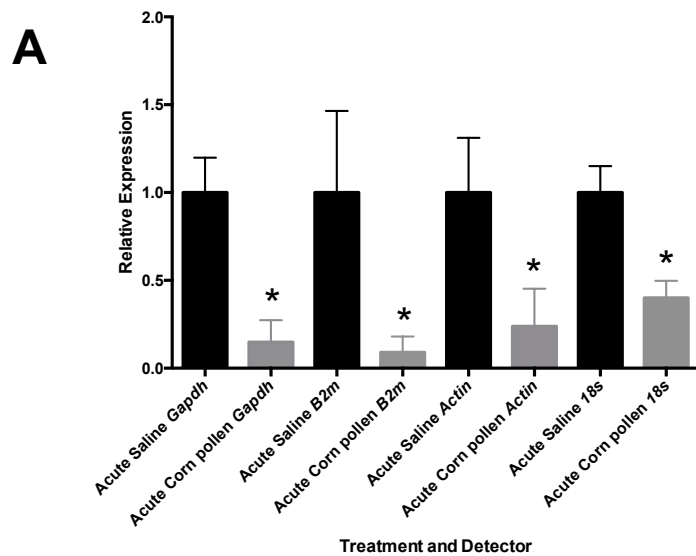
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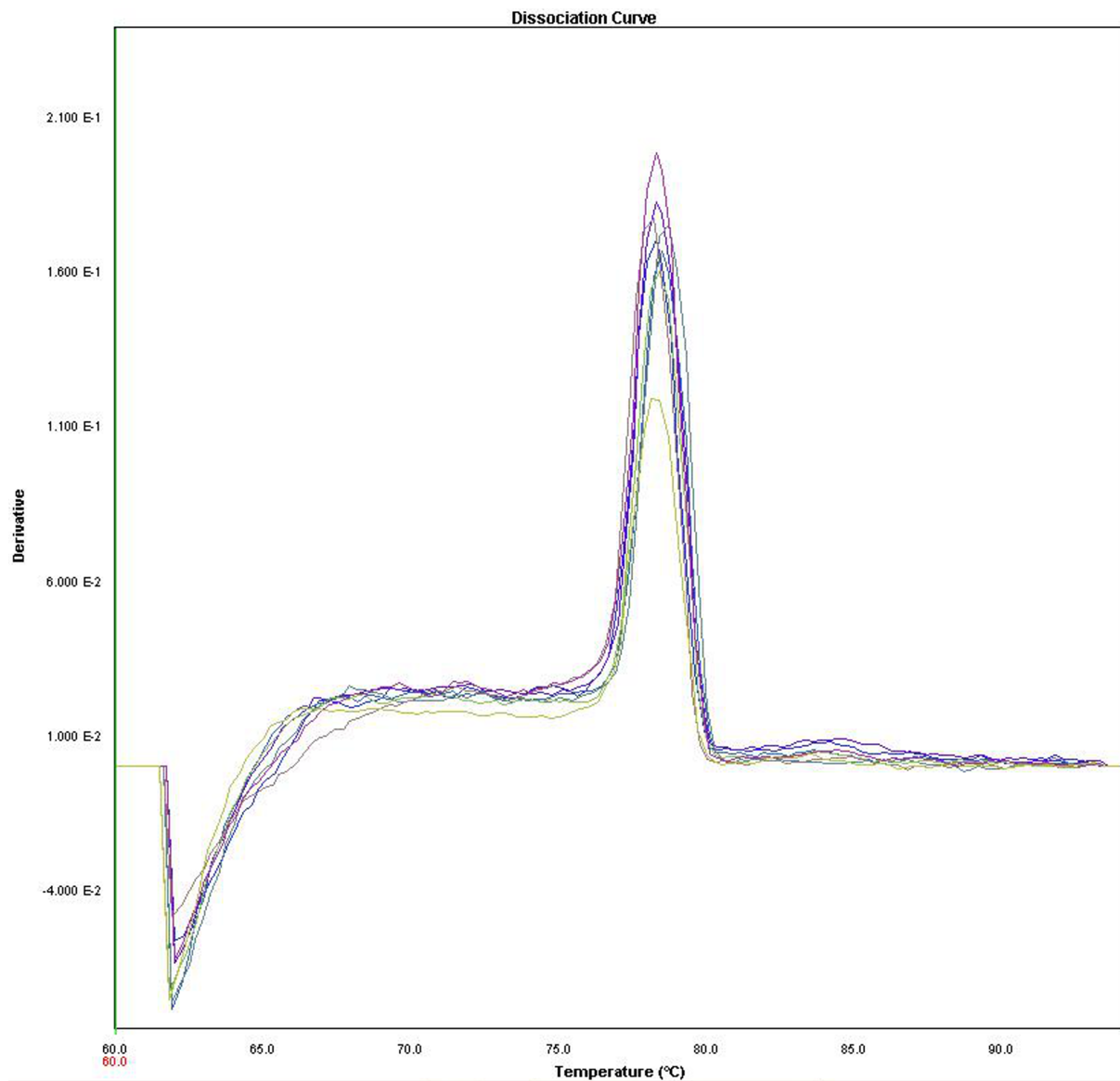
**Supplemental Figure 2.** Relative expression of *Gapdh*, *B2m*, *Actin* and *18s* housekeeping genes in lungs of mice treated with HDM or saline. The TaqMan<sup>®</sup> primer/probes (A) and SYBR<sup>®</sup> Green primer sets (B) showed a significant decrease in expression *Gapdh*, *B2m*, *Actin* and *18S* in the HDM-treated lungs. Data shown are mean ± SE; n=6 per group; \*p < 0.05 vs. saline control.

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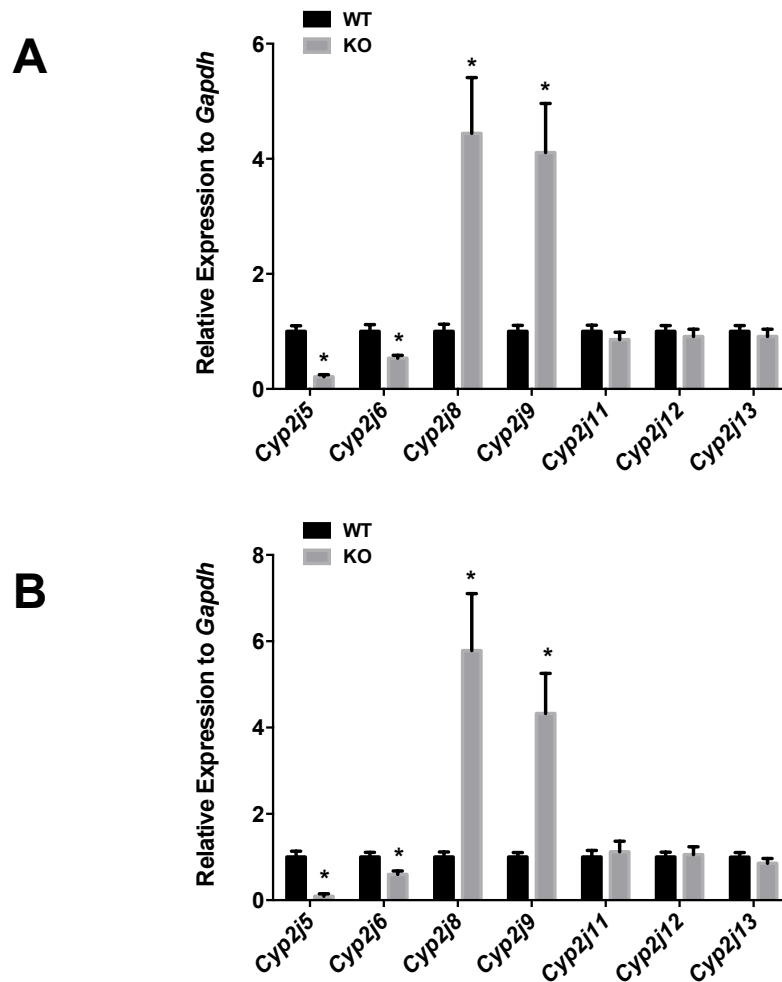
**Supplemental Figure 3.** Relative expression of *Gapdh*, *B2m*, *Actin* and *18s* housekeeping genes in lungs from mice treated with corn pollen or saline. The TaqMan® primer/probes in acute (A) and chronic (B) exposure models show a significant decrease in expression of the four housekeeping genes in mice exposed to corn pollen. Similar results were obtained with the SYBR® Green primer sets for acute (C) and chronic (D) exposure to corn pollen. Data shown are mean ± SE; n=6 per group; \*p < 0.05 vs. saline control.



**Supplemental Figure 4.** Representative dissociation curves of *Cyp2j8* SYBR® Green primer set for brain, lung, liver, fat, ovary and small intestine. Single peaks highly suggest that amplicons in all six tissues are *Cyp2j8*-derived.

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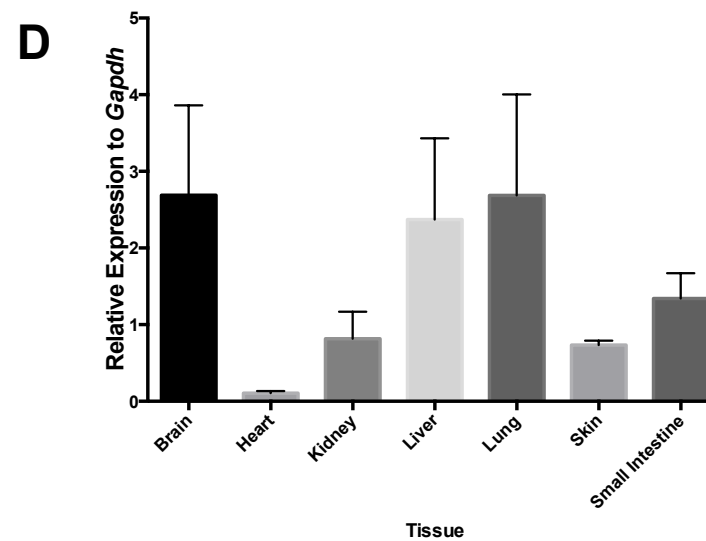
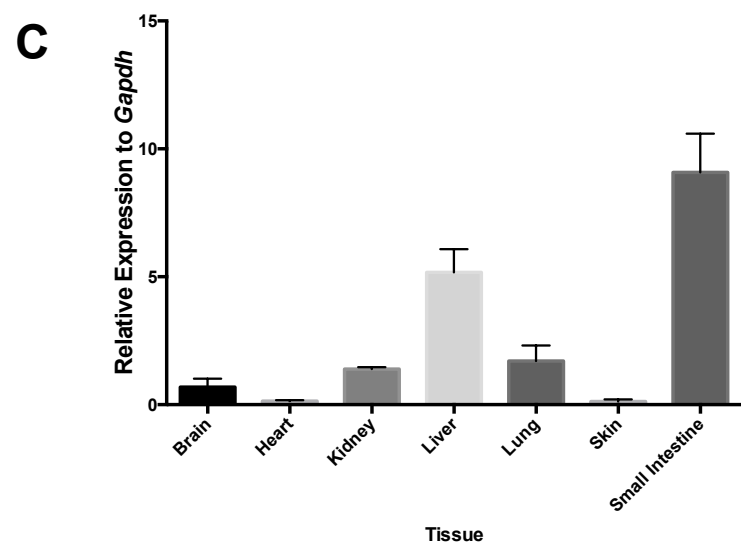
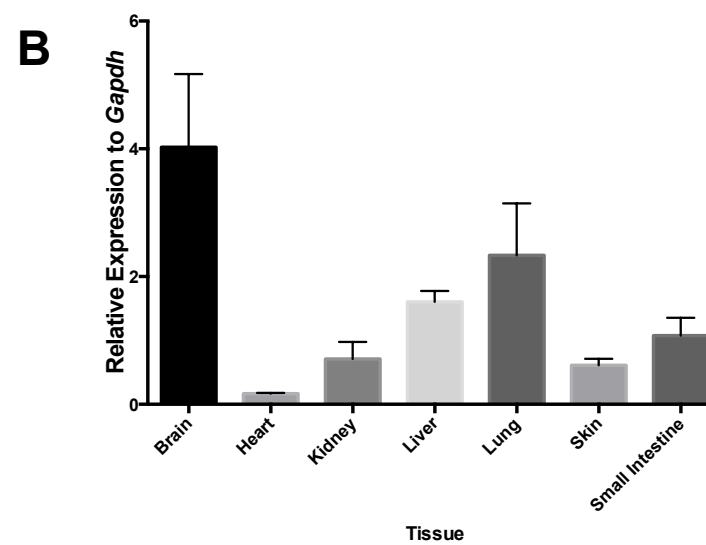
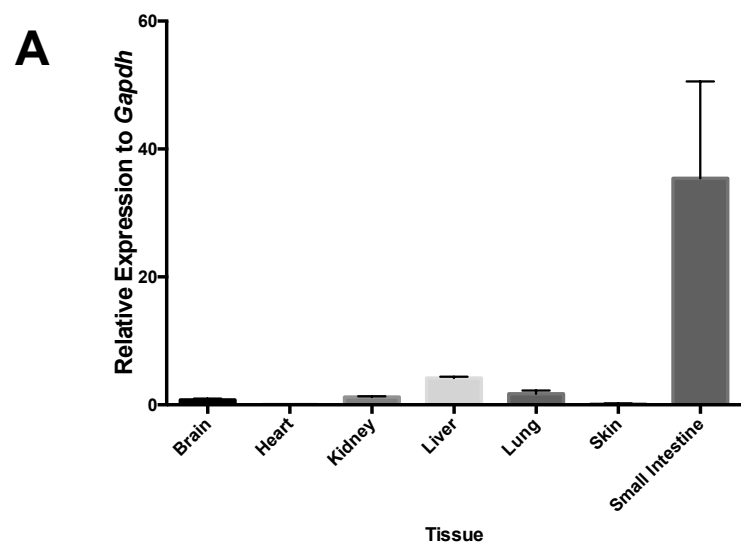
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**Supplemental Figure 5.** Detection of the mouse *Cyp2j* isoforms in *Cyp2j5* WT and KO liver. Both the *Cyp2j5* TaqMan<sup>®</sup> primer/probe (A) and the SYBR<sup>®</sup> Green primer set (B) revealed significantly lower *Cyp2j5* expression in the KO liver. As seen in the kidney, *Cyp2j8* and *Cyp2j9* were increased in the *Cyp2j5* KO liver relative to WT liver for both the TaqMan<sup>®</sup> primer/probe (A) and the SYBR<sup>®</sup> Green primer sets (B). However, *Cyp2j6* expression was decreased in the *Cyp2j5* KO liver relative to WT liver using both the TaqMan<sup>®</sup> primer probe (A) and the SYBR<sup>®</sup> Green primer sets (B). This is in contrast to the increase of *Cyp2j6* expression in *Cyp2j5* KO kidney relative to WT kidney for both sets of qPCR (Figure 8). Data shown are mean  $\pm$  SE, n = 6 per group, \*p < 0.05 vs WT.

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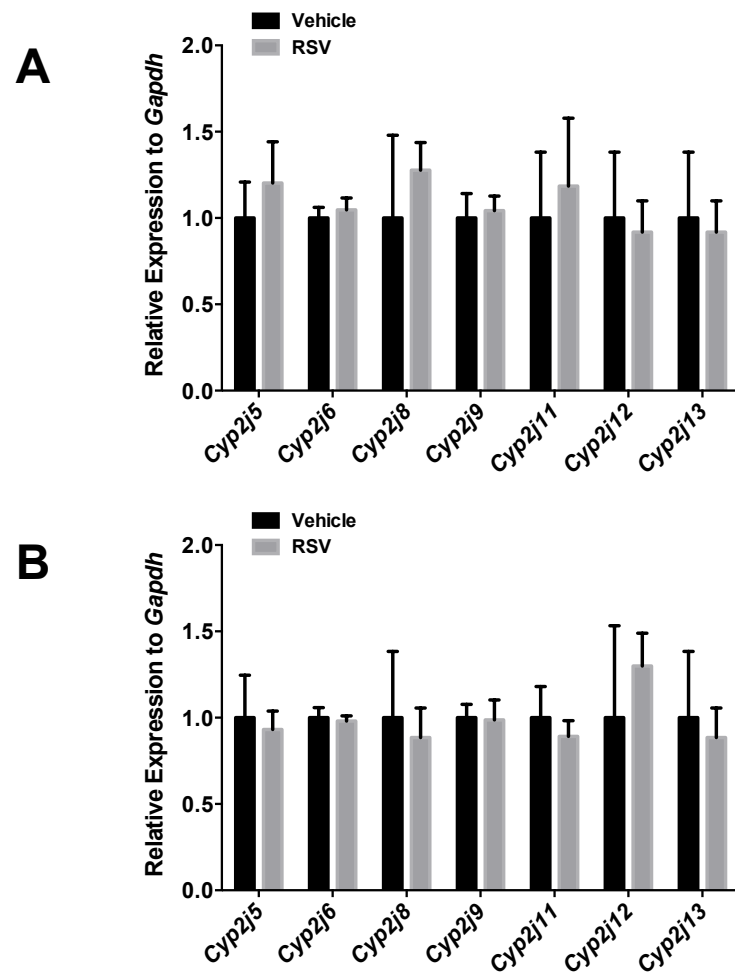
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**Supplemental Figure 6.** Tissue distribution of mouse *Cyp2j6* and *Cyp2j9* in male BALB/C mice. The expression profiles of *Cyp2j6* and *Cyp2j9* in BALB/C mice are examples of the similar profiles to the expression profiles in C57BL/6 mice. As in C57BL/6 mice (Fig. 2), BALB/C mice have the highest expression for *Cyp2j6* in small intestine for both the TaqMan<sup>®</sup> primer/probe (A) and SYBR<sup>®</sup> Green primer set (C). As in C57BL/6 mice (Fig. 4), BALB/C mice have the highest expression for *Cyp2j9* in brain, lung, and liver for both the TaqMan<sup>®</sup> primer/probe (B) and SYBR<sup>®</sup> Green primer set (D). Data shown are mean  $\pm$  SE, n= 3 per group.

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**Supplemental Figure 7.** Detection of the mouse *Cyp2j* isoforms in lungs of mice treated with human respiratory syncytial virus (RSV) or vehicle. Male C57BL/6 mice were infected with  $1 \times 10^7$  PFU/ml of the RSV strain RSV19 or Hep2 cell lysate as a control in a 50 $\mu$ l volume by intranasal instillation. Lungs were collected 5 days after infection. None of the mouse *Cyp2j* isoforms were significantly reduced or increased in the RSV treated mice when compared to vehicle controls using both TaqMan® primer/probes (A) and SYBR® Green primer sets (B). Data shown are mean  $\pm$  SE, n=3 per group.

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