

Supporting Information for:

Lung gene expression suggests roles for interferon-stimulated genes (ISGs) and adenosine deaminase acting against RNA-1 (ADAR-1) in pathologic responses to diisocyanate

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Supporting Information Table S6 : Differentially expressed genes in top predicted canonical pathways

Non-Sensitized Mice

<i>Granulocyte Adhesion & Diapedesis</i>	<i>CSF3R, CCL22, CXCL9, FPR1, CXCL10, IL1R2, IL36G, CLDN5, CCL2, CCL8, CXCR2, NGFR, MMP8, IL1B, CXCL17</i>
<i>Glucocorticoid Receptor Signaling</i>	<i>SGK1, POMC, CD163, TLR9, FCGR1A, PTGES3, TSC22D3, IL1R2, FOS, IKBKG, AKT1, POLR2A, NFKBIA, POLR2C, CCL2, DUSP1, CDKN1A, FOXO3, IL1B, HSP90AA1, PTGS2, UBE2I</i>
<i>Communication Between Innate & Adaptive Immune Cells</i>	<i>CXCL10, IL36G, HLA-A, TLR7, IL1B, CD8A, TLR9, HLA-E, HLA-DRB5</i>
<i>TREM1 Signaling</i>	<i>NLRC5, AKT1, CCL2, NLRP12, MYD88, TLR7, IL1B, FCGR2B, TLR9</i>
<i>Antigen Presentation Pathway</i>	<i>NLRC5, HLA-A, PSMB8, TAP1, HLA-E, HLA-DRB5, IL-17A</i>

MDI Sensitized Mice

<i>Granulocyte Adhesion & Diapedesis</i>	<i>IL1RL1, CCL17, CCL22, CCL11, CXCL9, CCL9, CCL2, CLDN, CCL8, CXCL17, MMP12, CCL6, MMP19</i>
<i>Agranulocyte Adhesion & Diapedesis</i>	<i>CCL17, CCL22, CXCR1, CCL11, CXCL9, CCL9, CCL2, CLDN, CCL8, CXCL17, MMP12, CCL6, MMP19</i>
<i>Complement System</i>	<i>C3, CFB, C1QC, C1QA, C1QB, C3AR1, ITGAX</i>
<i>Dendritic Cell Maturation</i>	<i>CD80, HLA-A, HLA-DRA, HLA-DQA1, HLA-DRB5, FCGR2A, TREM2, MAPK10, LY75, CREB3L4, FCGR2B, COL3A1</i>
<i>B Cell Development</i>	<i>CD80, HLA-A, HLA-DRA, HLA-DQA1, HLA-DRB5</i>

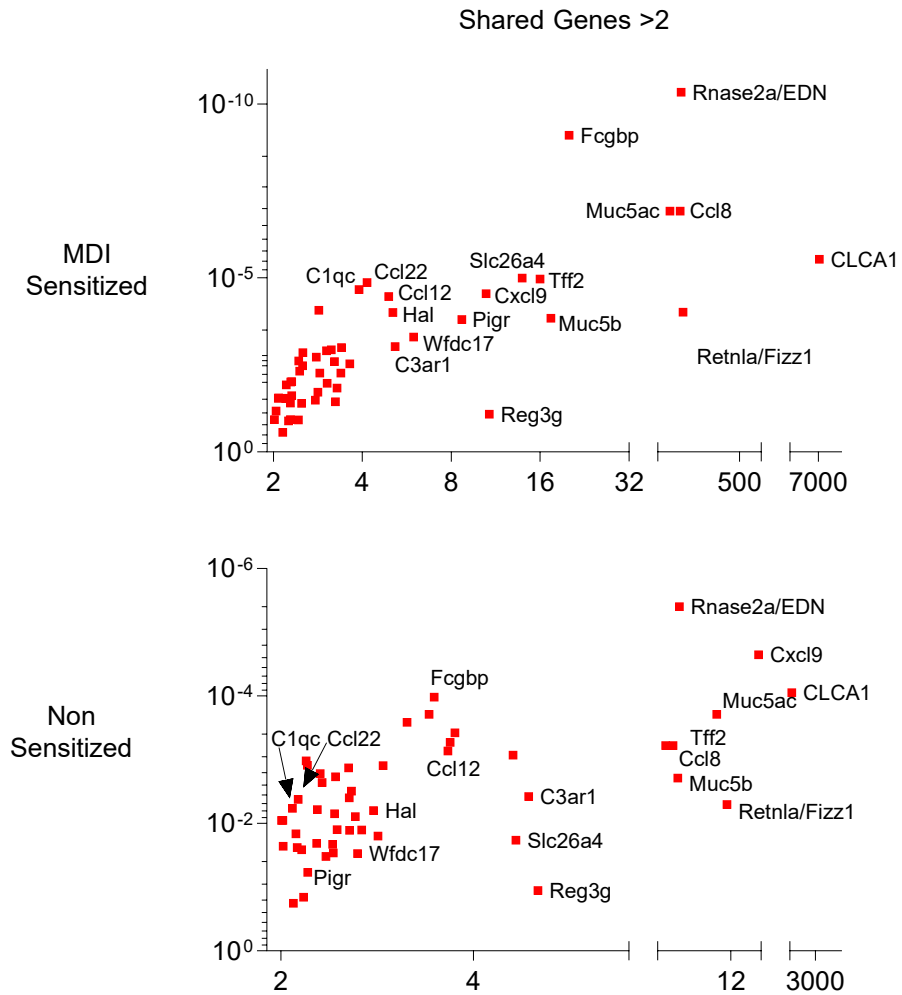


Fig S1. Volcano plot highlighting gene transcripts increased by MDI exposure regardless of prior immune sensitization. The 51 genes from MDI exposed mice with >2-fold increase in expression vs. control mice are depicted in a volcano plot with fold difference vs controls on the X-axis and p-value on the Y-axis. Data are plotted to highlight relative similarities of increased genes, but difference in relative increase as indicated by the difference in scale of the X-axis for MDI-immune sensitized vs. non-sensitized mice as labeled.

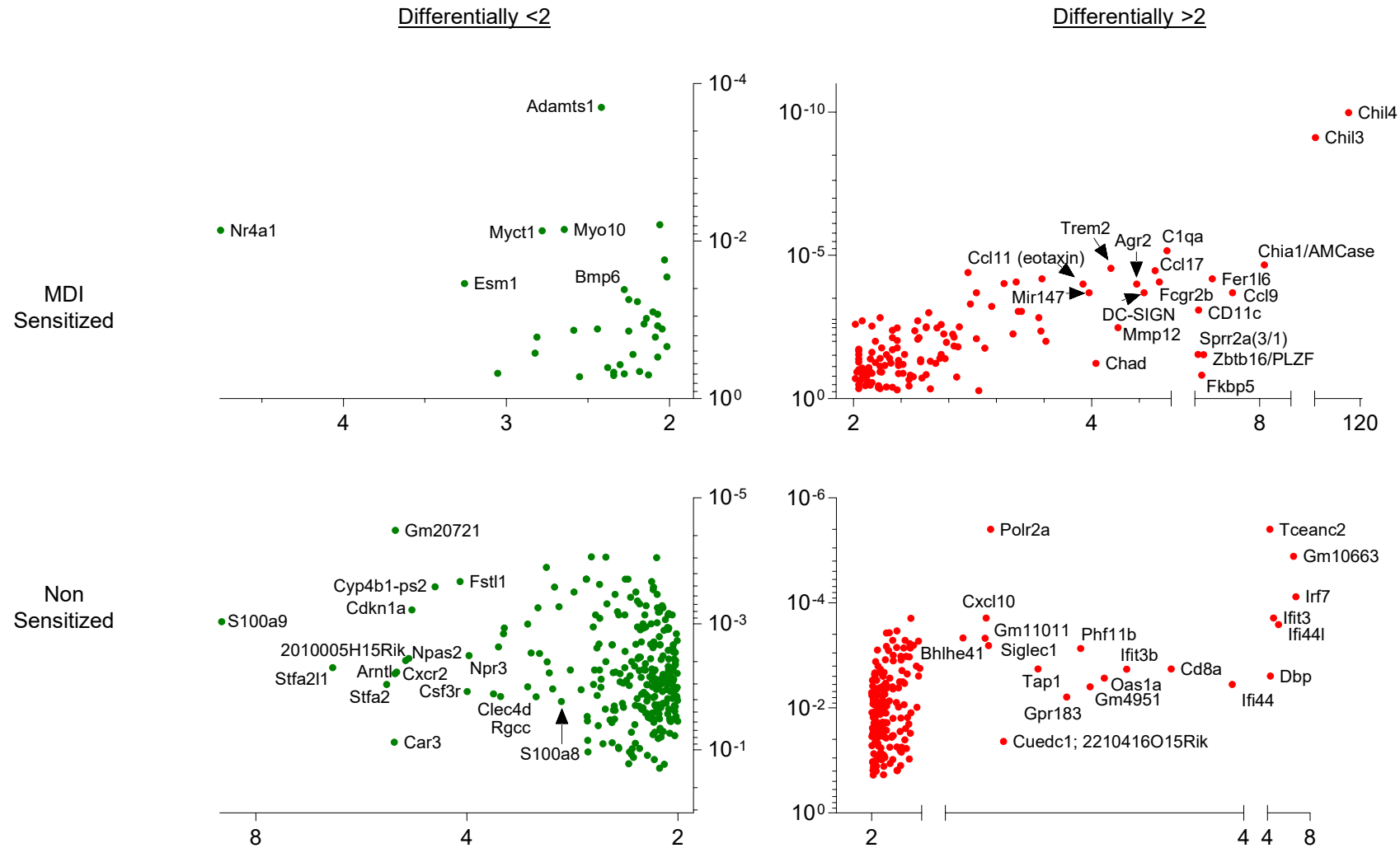


Fig S2. Differential gene expression in response to MDI exposure depending upon MDI-immune sensitization. Volcano plots highlighting gene transcripts differentially affected (± 2 -fold) by MDI exposure in MDI immune sensitized vs. non-sensitized mice. Each symbol represents a different gene transcript; those with the largest relative difference are labeled. Left side in green shows genes with relative decreased expression vs controls. Right side in red shows genes with relative increase in expression vs controls. Data are plotted to highlight relative differences, including the degree of fold change as can be discerned from the relative differences in scale of the X-axis for MDI-immune sensitized vs. non-sensitized mice as labeled.

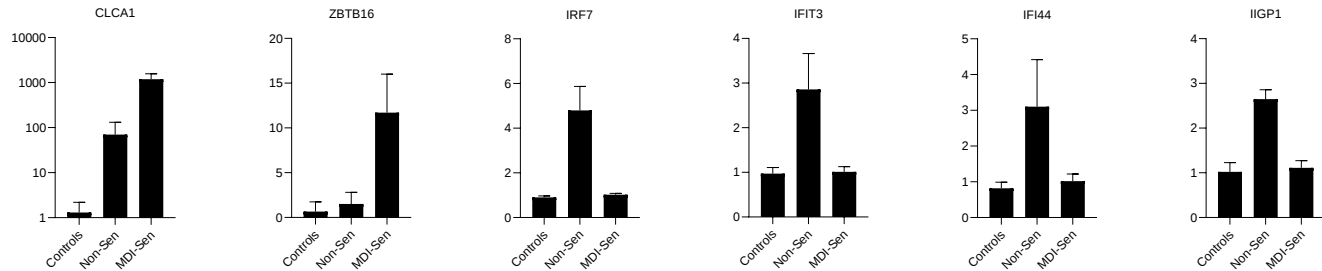


Fig S3. Real time PCR data of key gene transcripts. The ratio of gene expression (labeled on top) relative to actin is expressed on the Y-axis, in controls, MDI exposed Non-sensitized and MDI exposed MDI sensitized mice. Mean and standard error are calculated for N=8 mice/group. *Note Y-axis for CLCA1 data is on log scale to depict relative differences between different exposed groups vs. controls.