**MicroRNA-Mediated Calcineurin Signaling Activation Induces CCL2, CCL3, CCL5, IL8 and Chemotactic Activities in 4,4’-Methylene Diphenyl Diisocyanate Exposed Macrophages**

Data Dictionary

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| **Field Name** | **Field Contents** |
| *Alox5* | Mouse arachidonate 5-lipoxygenase mRNA; enzyme participate in the synthesis of leukotrienes from arachidonic acid |
| *Alox5ap* | Mouse arachidonate 5-Lipoxygenase Activating Protein mRNA; enzyme participate in the synthesis of leukotrienes from arachidonic acid |
| BALC | Cells from Bronchoalveolar Lavage of mouse lungs |
| *Ccl11* | Mouse C-C Motif Chemokine Ligand 11 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| *CCL11* | Human C-C Motif Chemokine Ligand 11 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| *Ccl17* | Mouse C-C Motif Chemokine Ligand 17 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| *Ccl2* | Mouse C-C Motif Chemokine Ligand 2 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| *CCL2* | Human C-C Motif Chemokine Ligand 2 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| Concentration (ng/ml) | Secreted protein concentration in nanogram per ml measured by ELISA in conditioned media collected from treated THP-1 macrophages |
| Concentration (pg/ml) | Secreted protein concentration in picogram per ml measured by ELISA in conditioned media collected from treated THP-1 macrophages |
| *Ccl22* | Mouse C-C Motif Chemokine Ligand 22 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| *Ccl3* | Mouse C-C Motif Chemokine Ligand 3 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| *CCL3* | Human C-C Motif Chemokine Ligand 3 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| *Ccl5* | Mouse C-C Motif Chemokine Ligand 5 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| *CCL5* | Human C-C Motif Chemokine Ligand 5 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes |
| % migration | Percentage migration of indicated cells into lower chamber after 6 hours incubation time in chemotaxis/migration assay |
| ELISA | Enzyme-linked, immunosorbent assay |
| FK506 | Tacrolimus; Calcineurin A inhibitor |
| Fold change | Fold change in gene expression compared to control. Determined by real-time PCR |
| *Gmcsf* | Mouse Granulocyte-Macrophage Colony-Stimulating Factor mRNA; a cytokine that controls the production, differentiation, and function of granulocytes and macrophages. |
| GSH | Reduced glutathione; antioxidant in biological system to reduce oxidative stress from reactive oxygen species |
| *hsa-miR-206-3p* | Human microRNA-206 that can post-transcriptionally regulate many gene expression. |
| *hsa-miR-381-3p* | Human microRNA-381 that can post-transcriptionally regulate many gene expression. |
| *Il1b* | Mouse Interleukin 1 beta mRNA; Potent proinflammatory cytokine |
| *IL1B* | Human Interleukin 1 beta mRNA; Potent proinflammatory cytokine |
| *IL6* | Human Interleukin 6 mRNA; Cytokine with a wide variety of biological functions in immunity |
| *CXCL8* | Human Interleukin-8 mRNA; a chemotactic factor that attracts neutrophils, basophils, and T-cells, but not monocytes |
| IL8 | Human Interleukin-8 protein; a chemotactic factor that attracts neutrophils, basophils, and T-cells, but not monocytes |
| MDI | 4,4’-methylene diphenyl diisocyanate; reactive chemical that is used for polyurethan production; cause agent for occupational asthma |
| miR | MicroRNA; post transcriptionally regulate gene expression through binding to 3' untranslated region of mRNA or mediate mRNA degradation |
| Mock | Treatments containing only complete media (RPMI-1640 supplement with 10% Fetal Bovine Serum, and 1× penicillin-streptomycin-glutamine) |
| pcDNA3.1+ | Empty plasmid DNA vector containing Human cytomegalovirus immediate-early (CMV) promoter; used as control. |
| pcDNA3.1+-PPP3CA | Plasmid DNA containing CMV promoter for high-level expression of PPP3CA gene in mammalian cells |
| Plasmid transfected | Indicated the cells were transfected with the plasmid DNA |
| *PPP3CA* | Human Serine/Threonine-Protein Phosphatase 2B Catalytic Subunit Alpha Isoform mRNA; catalytic subunit of calcineurin phosphatase for calcineurin/NFAT signaling |
| *Ptgs2* | Mouse Prostaglandin-Endoperoxide Synthase 2 mRNA; key enzyme in prostaglandin biosynthesis. |
| *Tgfb1* | Mouse Transforming Growth Factor Beta 1 mRNA; it regulates cell proliferation, differentiation, and growth, and can modulate expression and activation of other growth factors |
| *TGFB1* | Human Transforming Growth Factor Beta 1 mRNA; it regulates cell proliferation, differentiation, and growth, and can modulate expression and activation of other growth factors |
| *Tnf* | Mouse Tumor Necrosis Factor-Alpha mRNA; proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily |
| *TNF* | Human Tumor Necrosis Factor-Alpha mRNA; proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily |