

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

Data Dictionary

Field Name	Field Contents
<i>Alox5</i>	Mouse arachidonate 5-lipoxygenase mRNA; enzyme participate in the synthesis of leukotrienes from arachidonic acid
<i>Alox5ap</i>	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
<i>Ccl11</i>	Mouse C-C Motif Chemokine Ligand 11 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes
<i>CCL11</i>	Human C-C Motif Chemokine Ligand 11 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes
<i>Ccl17</i>	Mouse C-C Motif Chemokine Ligand 17 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes
<i>Ccl2</i>	Mouse C-C Motif Chemokine Ligand 2 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes
<i>CCL2</i>	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
<i>Ccl22</i>	Mouse C-C Motif Chemokine Ligand 22 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes
<i>Ccl3</i>	Mouse C-C Motif Chemokine Ligand 3 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes
<i>CCL3</i>	Human C-C Motif Chemokine Ligand 3 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes
<i>Ccl5</i>	Mouse C-C Motif Chemokine Ligand 5 mRNA; a member of chemokines involved in immunoregulatory and inflammatory processes
<i>CCL5</i>	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
<i>Gmcsf</i>	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

<i>hsa-miR-206-3p</i>	Human microRNA-206 that can post-transcriptionally regulate many gene expression.
<i>hsa-miR-381-3p</i>	Human microRNA-381 that can post-transcriptionally regulate many gene expression.
<i>Il1b</i>	Mouse Interleukin 1 beta mRNA; Potent proinflammatory cytokine
<i>IL1B</i>	Human Interleukin 1 beta mRNA; Potent proinflammatory cytokine
<i>IL6</i>	Human Interleukin 6 mRNA; Cytokine with a wide variety of biological functions in immunity
<i>CXCL8</i>	Human Interleukin-8 mRNA; a chemotactic factor that attracts neutrophils, basophils, and T-cells, but not monocytes
<i>IL8</i>	Human Interleukin-8 protein; a chemotactic factor that attracts neutrophils, basophils, and T-cells, but not monocytes
<i>MDI</i>	4,4'-methylene diphenyl diisocyanate; reactive chemical that is used for polyurethan production; cause agent for occupational asthma
<i>miR</i>	MicroRNA; post transcriptionally regulate gene expression through binding to 3' untranslated region of mRNA or mediate mRNA degradation
<i>Mock</i>	Treatments containing only complete media (RPMI-1640 supplement with 10% Fetal Bovine Serum, and 1× penicillin-streptomycin-glutamine)
<i>pcDNA3.1⁺</i>	Empty plasmid DNA vector containing Human cytomegalovirus immediate-early (CMV) promoter; used as control.
<i>pcDNA3.1⁺-PPP3CA</i>	Plasmid DNA containing CMV promoter for high-level expression of PPP3CA gene in mammalian cells
<i>Plasmid transfected</i>	Indicated the cells were transfected with the plasmid DNA
<i>PPP3CA</i>	Human Serine/Threonine-Protein Phosphatase 2B Catalytic Subunit Alpha Isoform mRNA; catalytic subunit of calcineurin phosphatase for calcineurin/NFAT signaling
<i>Ptgs2</i>	Mouse Prostaglandin-Endoperoxide Synthase 2 mRNA; key enzyme in prostaglandin biosynthesis.
<i>Tgfb1</i>	Mouse Transforming Growth Factor Beta 1 mRNA; it regulates cell proliferation, differentiation, and growth, and can modulate expression and activation of other growth factors
<i>TGFB1</i>	Human Transforming Growth Factor Beta 1 mRNA; it regulates cell proliferation, differentiation, and growth, and can modulate expression and activation of other growth factors
<i>Tnf</i>	Mouse Tumor Necrosis Factor-Alpha mRNA; proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily
<i>TNF</i>	Human Tumor Necrosis Factor-Alpha mRNA; proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily