MicroRNA-Mediated Krüppel-Like Factor 4 upregulation Induces Alternatively Activated Macrophage-Associated Markers and Chemokines Transcription in 4,4'-Methylene Diphenyl Diisocyanate Exposed Macrophages

Data Dictionary

| Field Name | Field Contents |
|--------------------|--|
| anti-IgG | Anti immunoglobin G isotype control; IgG antibody that is suitable for use as a non- |
| isotype | targeting isotype control in various in vitro and in vivo studies |
| | anti Argonaute proteins antibody; antibody against Argonaute protein 1-4; used to |
| | precipitate RNA-induced silencing complex which consist of argonaute proteins and |
| anti-panAGO | associated mRNA and miRs |
| | Human C-C Motif Chemokine Ligand 17 mRNA; a member of chemokines involved in |
| CCL17 | immunoregulatory and inflammatory processes |
| | Human C-C Motif Chemokine Ligand 22 mRNA; a member of chemokines involved in |
| CCL22 | immunoregulatory and inflammatory processes |
| | Human C-C Motif Chemokine Ligand 24 mRNA; a member of chemokines involved in |
| CCL24 | immunoregulatory and inflammatory processes |
| | Human Mannose Receptor C-Type 1 mRNA; a cell surface marker for M2 macrophages |
| | which recognizes and binds high-mannose structures on the surface of potentially |
| CD206 | pathogenic viruses, bacteria, and fungi |
| DMSO | Dimethyl Sulfoxide; used to dissolve kenpaullone |
| Fold change | Fold change in gene expression compared to control. Determined by real-time PCR. |
| | Reduced glutathione; antioxidant in biological system to reduce oxidative stress from |
| GSH | reactive oxygen species |
| hsa-miR-206- 3p | Human microRNA-206-3p; a member of human microRNAs which patriciate in |
| | posttranscriptional regulation of many human genes and cellular processes in different |
| | cells |
| | Human microRNA-381-3p; a member of human microRNAs which patriciate in |
| hsa-miR-381- | posttranscriptional regulation of many human genes and cellular processes in different |
| 3p | cells |
| IP antibody | immunoprecipitation antibody |
| Kenpaullone | a small molecule chemical inhibitor of KLF4 |
| KLF4 | Human Krüppel-like factor 4 mRNA; a member of Krüppel-like transcription factors |
| | involved in stem cell, cell differentiation, immunoregulatory processes |
| | 4,4'-methylene diphenyl diisocyanate; reactive chemical that is used for polyurethan |
| MDI | production; cause agent for occupational asthma |
| | MicroRNA; a class of non-coding RNAs that participated in posttranscriptional |
| miR | regulation of many different genes and cellular processes in different cell types |
| | Inhibitors of microRNA; commercially available inhibitor that was designed to bind |
| miR-inhibitor | endogenous microRNAs to inhibit its function and expression |
| miR-inhibitor- | microRNA-206-3p inhibitor; commercially available microRNA inhibitor that was |
| 206-3p | designed to target endogenous hsa-miR-206-3p |
| miR-inhibitor- | microRNA-381-3p inhibitor; commercially available microRNA inhibitor that was |
| 381-3p | designed to target endogenous hsa-miR-381-3p |

| | microRNA inhibitor control; commercial available microRNA inhibitor control that was |
|----------------|--|
| miR-inhibitor- | designed not targeting any endogenous microRNAs and it served as transfection |
| Ctl | control for other microRNA inhibitors |
| miR-mimic- | microRNA-206-3p mimic; commercially available microRNA mimic that was designed to |
| 206-3p | serve as exogenous hsa-miR-206-3p to study hsa-miR-206-3p function in the cells |
| miR-mimic- | microRNA-381-3p mimic; commercially available microRNA mimic that was designed to |
| 381-3p | serve as exogenous hsa-miR-381-3p to study hsa-miR-381-3p function in the cells |
| | microRNA mimic control; commercially available microRNA mimic control, an |
| | exogenous stable exogenous microRNA which cannot target any endogenous |
| miR-mimic-Ctl | microRNA; it served as transfection control for other microRNA mimics |
| | mimics of microRNA; commercially available exogenous microRNAs that was designed |
| | as stable exogenous microRNA, ready for transfection and used to study microRNA |
| miR-mimics | function in the cells |
| | Treatments containing only complete media (RPMI-1640 supplement with 10% Fetal |
| Mock | Bovine Serum, and 1× penicillin-streptomycin-glutamine) |
| | Empty plasmid DNA vector containing Human cytomegalovirus immediate-early (CMV) |
| pCMV6-Entry | promoter as control. |
| pCMV6-Entry- | Plasmid DNA containing CMV promoter for high-level expression of KLF4 gene in |
| KLF4 | mammalian cells |
| Plasmid | |
| transfected | Indicated the cells was transfected with the plasmid DNA |
| | Human Transglutaminase 2 mRNA; belongs to transglutaminases are enzymes that |
| | catalyze the crosslinking of proteins by epsilon-gamma glutamyl lysine isopeptide |
| TGM2 | bonds |
| | |