***Additional File 1***

***Table S1. Key resources table***

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| --- | --- | --- | --- | --- |
| **Reagent type (species) or resource** | **Designation** | **Source or reference** | **Identifiers** | **Additional information** |
| Antibody | Anti-COX1 (rabbit monoclonal) | abcam | Cat#ab109025  RRID: AB\_10865291 | IF (1:400) |
| Antibody | Anti-CD80 (mouse monoclonal) | abcam | Cat#ab86473  RRID: AB\_2076149 | IF (1:400) |
| Antibody | Anti-F4/80 (rat monoclonal) | abcam | Cat#ab6640  RRID: AB\_1140040 | IF (1:200) |
| Antibody | Anti-EP4R (rabbit polyclonal) | abcam | Cat#ab45295 RRID: AB\_882214 | WB (1:1000) |
| Antibody | Anti-CD206 (mouse monoclonal) | abcam | Cat#ab8918  RRID: AB\_306860 | IF (1/50) |
| Antibody | Anti-CD31 (mouse monoclonal) | abcam | Cat#ab24590  RRID: AB\_448167 | IF (1:1000) |
| Antibody | Anti-Laminb (rabbit polyclonal) | abcam | Cat#ab16048  RRID: AB\_10107828 | WB (1:1000) |
| Antibody | Anti-COX2 (rabbit polyclonal) | Cayman Chemical Company | Cat#160107  RRID: AB\_10078833 | WB (1:200) IF (1:200) |
| Antibody | Anti-EP1R (rabbit polyclonal) | Cayman Chemical Company | Cat#101740  RRID: AB\_10079426 | WB (1:200) IF (1:200) |
| Antibody | Anti-EP2R (rabbit polyclonal) | Cayman Chemical Company | Cat#101750  RRID: AB\_10078697 | WB (1:200) IF (1:100) |
| Antibody | Anti-EP3R (rabbit polyclonal) | Cayman Chemical Company | Cat#101760  RRID: AB\_10077931 | WB (1:200) IF (1:100) |
| Antibody | Anti-p-p65 (rabbit monoclonal) | Cell Signaling | Cat#3033S  RRID: AB\_331284 | WB (1:1000) |
| Antibody | Anti-p65 (rabbit monoclonal) | Cell Signaling | Cat#8242S  RRID: AB\_10859369 | WB (1:1000) |
| Antibody | Anti-p-Erk (1/2) (rabbit monoclonal) | Cell Signaling | Cat#4370S RRID: AB\_2315112 | WB (1:1000) |
| Antibody | Anti-Erk (1/2) (rabbit monoclonal) | Cell Signaling | Cat#4695S  RRID: AB\_390779 | WB (1:1000) |
| Antibody | Anti-p-p38 (rabbit monoclonal) | Cell Signaling | Cat#4511S  RRID: AB\_2139682 | WB (1:1000) |
| Antibody | Anti-p38 (rabbit monoclonal) | Cell Signaling | Cat#8690S  RRID: AB\_10999090 | WB (1:1000) |
| Antibody | Anti-p-JNK (1/2) (rabbit monoclonal) | Cell Signaling | Cat#4668S  RRID: AB\_823588 | WB (1:1000) |
| Antibody | Anti-JNK (1/2) (rabbit monoclonal) | Cell Signaling | Cat#9252S  RRID: AB\_2250373 | WB (1:1000) |
| Antibody | Anti-β-actin (mouse monoclonal) | Sigma-Aldrich | Cat#A5316  RRID: AB\_476743 | WB (1:5000) |
| Other | DAPI | Sigma-Aldrich | Cat#F6057 |  |
| Antibody | Alexa Fluor™ 488-GS-IB4 | Invitrogen | Cat#I21411  RRID: AB\_2314662 | IF (1:500) |
| Chemical compound, drug | M-CSF | R&D Systems | Cat#416-ML |  |
| Chemical compound, drug | Celecoxib | Cayman Chemical Company | Cat#169590-42-5 |  |
| Chemical compound, drug | PGE2 | Cayman Chemical Company | Cat#14010 |  |
| Peptide, recombinant protein | Recombinant Human IL-10 | PeproTech | Cat#200-10 |  |
| Peptide, recombinant protein | Recombinant Murine IL-4 | PeproTech | Cat#214-14 |  |
| Chemical compound, drug | LPS | Sigma-Aldrich | Cat#L4391 |  |
| Chemical compound, drug | Butaprost | Cayman Chemical Company | Cat#13740 |  |
| Chemical compound, drug | Sulprostone | Cayman Chemical Company | Cat#14765 |  |
| Chemical compound, drug | Cay10598 | Cayman Chemical Company | Cat#13281 |  |
| Chemical compound, drug | H-89 | Cayman Chemical Company | Cat#10010556 |  |
| Chemical compound, drug | LY294002 | Cayman Chemical Company | Cat#70920 |  |
| Chemical compound, drug | Alexa Fluor 555 anti-rabbit IgG (H+L) (Donkey polyclonal) | Thermo Fisher Scientific | Cat#A-31572  AB\_162543 |  |
| Chemical compound, drug | Alexa Fluor 555 anti-mouse IgG (H+L) (Donkey polyclonal) | Thermo Fisher Scientific | Cat#A-31570  AB\_2536180 |  |
| Chemical compound, drug | Alexa Fluor 488 anti-rabbit IgG (H+L) (Donkey polyclonal) | Thermo Fisher Scientific | Cat#A21206  AB\_2535792 |  |
| Chemical compound, drug | Alexa Fluor 488 anti-mouse IgG (H+L) (Donkey polyclonal) | Thermo Fisher Scientific | Cat#A21202  RRID: AB\_141607 |  |
| Commercial assay or kit | Mouse PGE2 ELISA Kit | CAYMAN CHEMICAL COMPANY | Cat#514010 |  |
| Commercial assay or kit | Mouse IL10 ELISA Kit | CUSABIO | Cat#CSB-E04594m |  |
| Commercial assay or kit | Dual-Luciferase® Reporter (DLR™) Assay System | Promega | Cat#E1910 |  |
| Commercial assay or kit | Light Shift Chemiluminescent EMSA kit | Thermo Fisher Scientific | Cat#20148 |  |
| Sequence based reagent | mIL10\_F | This paper | PCR primers | gctcttactgactggcatgag |
| Sequence based reagent | mIL10\_R | This paper | PCR primers | cgcagctctaggagcatgtg |
| Sequence based reagent | mArg1\_F | This paper | PCR primers | ctccaagccaaagtccttagag |
| Sequence based reagent | mArg1\_R | This paper | PCR primers | aggagctgtcattagggacatc |
| Sequence based reagent | mYM1\_F | This paper | PCR primers | agaagggagtttcaaacctggt |
| Sequence based reagent | mYM1\_R | This paper | PCR primers | gtcttgctcatgtgtgtaagtga |
| Sequence based reagent | mMgl1\_F | This paper | PCR primers | tgagaaaggctttaagaactggg |
| Sequence based reagent | mMgl1\_R | This paper | PCR primers | gaccacctgtagtgatgtggg |
| Sequence based reagent | mMrc2\_F | This paper | PCR primers | tacagctccacgctatggatt |
| Sequence based reagent | mMrc2\_R | This paper | PCR primers | cactctcccagttgaggtact |
| Sequence based reagent | mTNFα\_F | This paper | PCR primers | acggcatggatctcaaagac |
| Sequence based reagent | mTNFα\_R | This paper | PCR primers | agatagcaaatcggctgacg |
| Sequence based reagent | mINOS\_F | This paper | PCR primers | cccttcaatggttggtacatgg |
| Sequence based reagent | mINOS\_R | This paper | PCR primers | acattgatctccgtgacagcc |
| Sequence based reagent | mCD16\_F | This paper | PCR primers | tttggacacccagatgtttcag |
| Sequence based reagent | mCD16\_R | This paper | PCR primers | gtcttccttgagcacctggatc |
| Sequence based reagent | mCD32\_F | This paper | PCR primers | aatcctgccgttcctactgatc |
| Sequence based reagent | mCD32\_R | This paper | PCR primers | gtgtcaccgtgtcttccttgag |