**Table S1 Echocardiographic analysis of control, EAM and LIPUS treated mice groups on day 21:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Control** | **EAM** | **LIPUS** |
| **Heart Rate (BPM)** | **401.90±16.60** | **284.60±53.50\*\*** | **346.20±48.50#** |
| **Ejection Fraction (EF, %)** | **84.40±4.01** | **52.39±7.86\*\*\*** | **70.37±4.94###††** |
| **Fractional Shortening (FS, %)** | **51.66±4.98** | **26.37±4.85\*\*\*** | **38.42±3.76##†††** |
| **LVID diastolic (mm)** | **2.50±0.24** | **3.54±0.32\*\*** | **2.89±0.52#** |
| **LVID systolic (mm)** | **1.23±0.13** | **2.58±0.28\*\*\*** | **1.80±0.35###††** |
| **LVEDV (μL)** | **22.73±5.65** | **53.16±11.69\*\*** | **33.52±13.50#** |
| **LVESV (μL)** | **3.65±1.03** | **24.69±6.12\*\*\*** | **10.38±5.07###†** |

**Table S1 Echocardiographic analysis of control, EAM and LIPUS treated mice groups on day 21.** Summary of heart rate, ejection fraction, fractional shortening, left ventricular internal dimension diastolic (LVID diastolic), left ventricular internal dimension systolic (LVID systolic), left ventricular end-diastolic volume (LVEDV) and left ventricular end- systolic volume (LVESV) of health control mice, EAM mice and LIPUS mice after 21 days’ model, respectively. Data are presented as mean ± SD; \*\* *P*﹤0.01; \*\*\* *P*﹤0.001 versus Control; # *P*﹤0.05; ## *P*﹤0.01; ### *P*﹤0.001 versus EAM; † *P*﹤0.05; †† *P*﹤0.01; ††† *P*﹤0.001 versus Control.

**Table S2 Echocardiographic analysis of control, EAM and LIPUS treated mice groups on day 56.:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Control** | **EAM** | **LIPUS** |
| **Heart Rate (BPM)** | **376.00±21.38** | **331.70±62.27** | **350.70±27.48** |
| **Ejection Fraction (EF, %)** | **70.62±3.48** | **42.45±5.20\*\*\*** | **60.05±2.06###†††** |
| **Fractional Shortening (FS, %)** | **39.09±2.53** | **20.47±2.95\*\*\*** | **31.20±1.35###†††** |
| **LVID diastolic (mm)** | **3.34±0.53** | **3.72±0.15** | **3.56±0.32** |
| **LVID systolic (mm)** | **2.03±0.39** | **2.95±0.15\*\*\*** | **2.32±0.18##††** |
| **LVEDV (μL)** | **47.10±17.38** | **59.35±5.71** | **53.56±11.59** |
| **LVESV (μL)** | **14.08±6.29** | **33.7±4.17\*\*\*** | **18.80±3.83###** |

**Table S2 Echocardiographic analysis of control, EAM and LIPUS treated mice groups on day 56.** Summary of heart rate, ejection fraction, fractional shortening, left ventricular internal dimension diastolic (LVID diastolic), left ventricular internal dimension systolic (LVID systolic), left ventricular end-diastolic volume (LVEDV) and left ventricular end- systolic volume (LVESV) of health control mice, EAM mice and LIPUS mice after 56 days model, respectively. Data are presented as mean ± SD; \*\*\* *P*﹤0.001 versus Control; ## *P*﹤0.01; ### *P*﹤0.001 versus EAM; †† *P*﹤0.01; ††† *P*﹤0.001 versus Control. Data are presented as mean ± SD.

**Table S3 Sequences of the primers for real time RT-PCR:**

|  |  |  |
| --- | --- | --- |
| Gens | primers | sequences |
| IL-6 | Forward  Reverse | 5´- ACAACCACGGCCTTCCCTACT -3´  5´- CTCATTTCCACGATTTCCCAGA -3´ |
| RORγt | Forward  Reverse | 5´- GCAGGAGCAATGGAAGTCG -3´  5´- CGCTGAGGAAGTGGGAAAA -3´ |
| IL-17A | Forward  Reverse | 5´-GCTGTTGCTGCTGCTGAG-3´  5´- TGGAACGGTTGAGGTAGTC -3´ |
| IL-21 | Forward  Reverse | 5´- GGACCCTTGTCTGTCTGGTAG-3´  5´- TGTGGAGCTGATAGAAGTTCAGG-3´ |
| IL-22 | Forward  Reverse | 5´- ATGAGTTTTCCCTTATGGGGAC-3´  5´- GCTGGAAGTTGGACACCTCAA-3´ |
| IL-23 | Forward  Reverse | 5´- ATGCTGGATTGCAGAGCAGTA-3´  5´- ACGGGGCACATTATTTTTAGTCT-3´ |
| Foxp3 | Forward  Reverse | 5´- GAGAAAGCGGATACCAAA-3´  5´- TGTGAGGACTACCGAGCC-3´ |
| TGF-β | Forward  Reverse | 5´- CAAACTAAGGCTCGCCAGTCC -3´  5´- TTGCGGTCCACCATTAGCAC -3´ |
| IL-10 | Forward  Reverse | 5´- GGACAACATACTGCTAACCGACTC -3´  5´- TTCATGGCCTTGTAGACACCTT -3´ |
| IL-35 | Forward  Reverse | 5´- TATGGTCAGCGTTCCAACAGC-3´  5´- TTCGGGACTGGCTAAGACACC-3´ |
| CCL-3 | Forward  Reverse | 5´- CATATGGAGCTGACACCCCG-3´  5´- GAGCAAAGGCTGCTGGTTTC-3´ |
| CCL-4 | Forward  Reverse | 5´- TGTGCAAACCTAACCCCGAG-3´  5´- CCATTGGTGCTGAGAACCCT-3´ |
| CCL-5 | Forward  Reverse | 5´-GTGCTCCAATCTTGCAGTCG -3´  5´- GGATTACTGAGTGGCATCCCC-3´ |
| IL-12 | Forward  Reverse | 5´- TGGTTTGCCATCGTTTTGCTG-3´  5´- ACAGGTGAGGTTCACTGTTTCT-3´ |
| IL-15 | Forward  Reverse | 5´-GGAGCTGGAGGAGAAAACCTT -3´  5´- AACACGGAAGAGGCTCGCAT-3´ |
| IL-18 | Forward  Reverse | 5´- TCTTGGCCCAGGAACAATGG -3´  5´- ACAGTGAAGTCGGCCAAAGT-3´ |
| CXCL-10 | Forward  Reverse | 5´- AAGCTATGTGGAGGTGCGAC-3´  5´- AACCCCTTGGGAAGATGGTG-3´ |
| IL-1β | Forward  Reverse | 5´- AAATACCTGTGGCCTTGGGC-3´  5´- CTTGGGATCCACACTCTCCAG-3´ |
| TNF-α | Forward  Reverse | 5´- CATCTTCTCAAAATTCGAGTGACAA-3´  5´- TGGGAGTAGACAAGGTACAACCC-3´ |
| IFN-γ | Forward  Reverse | 5´-GCAACAGCAAGGCGAAAAAG -3´  5´- CGCTTCCTGAGGCTGGATTC-3´ |
| BNP | Forward  Reverse | 5´- CTGAAGGTGCTGTCCCAGAT -3´  5´- CCTTGGTCCTTCAAGAGCTG -3´ |
| MMP2 | Forward  Reverse | 5′-ACACCAAGAACTTCCGACTATCCAATG-3′  5′-CAGTACCAGTGTCAGTATCAGCATCAG-3′ |
| MMP9 | Forward  Reverse | 5′-CTCCTGGTGCTCCTGGCTCTAG-3′  5′-GTGTAACCATAGCGGTACAGGTAATCC-3′ |
| AChE | Forward  Reverse | 5´- ATCGGTGTACCCCAAGCAAG-3´  5´- CTCGTCCAGAGTATCGGTGG-3´ |
| ChAT | Forward  Reverse | 5'-TTCTGCTGTTATGGCCCTGTGGTA-3'  5´- ACTTGGGCTGTCTTTGTGCATGTG-3' |
| CHT1 | Forward  Reverse | 5´- GAAAACCAAAAACAGCGGCAA-3´  5´- AGGACCCTCTGGAAGTAGGC-3´ |
| VAChT | Forward  Reverse | 5´- GTGCGTTGCACTGTTACTGG-3´  5´- GACTGTGGAGGCGAACATGA-3´ |
| β-actin | Forward  Reverse | 5´- GTGACGTTGACATCCGTAAAGA-3´  5´- GTAACAGTCCGCCTAGAACAC-3´ |

**Table S4 FACS Information of splenic and cardiac immune cells**

|  |  |  |
| --- | --- | --- |
| **FACS Information of splenic immune cells** | | |
| Fluorochromes | FACS Antigens | ID |
| BV-510 | Zombie Aqua™ Fixable Viability Kit | Biolegend: 423101 |
| FITC | anti-mouse CD45 | Biolegend: 103108 |
| PE/Cyanine7 | Rat anti-mouse CD4 | BD PMG: 561099 |
| PE/Cyanine7 | anti-mouse/human CD11b | Biolegend: 101215 |
| PE | anti-mouse F4/80 | Biolegend: 123109 |
| PE | Ms IL17A TC11-18H10 | BD PMG: 561020 |
| PE | Anti-mouse/rat FOXP3 (FJK-16S) | eBioscience: 12-5773-80 |
| APC | MS CD25 MAB | BD PMG: 557192 |
| **FACS Information of cardiac immune cells** | | |
| Fluorochromes | FACS Antigens | ID |
| BV-510 | Zombie Aqua™ Fixable Viability Kit | Biolegend: 423101 |
| FITC | Anti-mouse CD45 | Biolegend: 103108 |
| PE/Cyanine7 | Rat anti-mouse CD4 | BD PMG: 561099 |
| PE/Cyanine7 | Anti-mouse/human CD11b | Biolegend: 101215 |
| PE | Anti-mouse F4/80 | Biolegend: 123109 |
| PE | Ms IL17A TC11-18H10 | BD PMG: 561020 |
| PE | Anti-mouse/rat FOXP3 (FJK-16S) | eBioscience: 12-5773-80 |
| APC | MS CD25 MAB | BD PMG: 557192 |
| Alexa Fluor® 647 | Anti-mouse CD192 (CCR2) | Biolegend:150603 |
| PerCP/Cyanine5.5 | Anti-mouse I-A/I-E (MHC II) | Biolegend: 107625 |