Supplementary Table 1. Production of inflammatory cytokines and chemokines by non-senescent HUVECs (NC HUVEC) and IR-induced senescent HUVECs (IR HUVEC) 24 hours after incubation with vehicle or stimulated with 30 ng/mL LPS.

|                | 1 vs 2 | 3 vs 4 | 1 vs 3 | 2 vs 4 |
|----------------|--------|--------|--------|--------|
| sCD40L         |        |        |        |        |
| TNFα           |        |        |        |        |
| TGFα           |        |        |        |        |
| Fractalkine    |        |        |        |        |
| IL1α           |        |        |        |        |
| IL1β           |        |        |        |        |
| IL1RA          |        |        |        |        |
| IL2            |        |        |        |        |
| IL3            |        |        |        |        |
| IL4            |        |        |        |        |
| IL5            |        |        |        |        |
| IL6            |        |        |        |        |
| IL7            |        |        |        |        |
| IL8            |        |        |        |        |
| IL9            |        |        |        |        |
| IL10           |        |        |        |        |
| IL12p40        |        |        |        |        |
| IL12p70        |        |        |        |        |
| IL17           |        |        |        |        |
| IFN-α2         |        |        |        |        |
| IFN-γ          |        |        |        |        |
| IL17A          |        |        |        |        |
| IL17E/IL25     |        |        |        |        |
| IL17F          |        |        |        |        |
| IL18           |        |        |        |        |
| IL22           |        |        |        |        |
| IL27           |        |        |        |        |
| IP10           |        |        |        |        |
| MCP3           |        |        |        |        |
| MCSF           |        |        |        |        |
| MDC            |        |        |        |        |
| MIG/CXCL9      |        |        |        |        |
| MIP-1β         |        |        |        |        |
| PDGF-AA        |        |        |        |        |
| PDGF-AB/BB     |        |        |        |        |
| RANTES         |        |        |        |        |
| TGFr           |        |        |        |        |
| TNFα           |        |        |        |        |
| Eotaxin-2      |        |        |        |        |
| MCP-2          |        |        |        |        |
| BCA-1          |        |        |        |        |
| I-309          |        |        |        |        |
| IL16           |        |        |        |        |
| TARC           |        |        |        |        |

**P-values:**
- **NS** indicates non-significant difference.
- **p < 0.05**
- **p < 0.01**
- **p < 0.001**
SCF 1.07 ± 0.35 1.19 ± 0.18 55.23 ± 10.57 113.49 ± 16.47 NS ** *** ***
IL33 1.67 ± 0.28 1.61 ± 0.50 15.92 ± 6.71 16.80 ± 4.49 NS NS **
IL21 0.74 ± 0.31 0.66 ± 0.16 7.62 ± 1.68 8.50 ± 3.16 NS NS ***
IL23 20.58 ± 15.29 13.03 ± 6.14 182.15 ± 70.78 66.92 ± 65.34 NS ** NS
TRAIL 2.42 ± 0.15 2.93 ± 0.41 71.80 ± 17.18 85.64 ± 10.35 NS NS NS
SDF-1α+β 0.00 ± 0.00 19.83 ± 24.89 232.60 ± 280.75 430.73 ± 290.46 NS NS NS *
ENA-78 55.09 ± 5.29 407.35 ± 43.44 9255.07 ± 158.57 17449.80 ± 3021.68 NS NS NS
*(n = 4; mean ± SD; * p<0.05 ** p<0.01 *** p<0.001).

Supplementary Table 2. List of primers used for qPCR.

| Gene   | Forward primer                  | Reverse primer                  |
|--------|---------------------------------|---------------------------------|
| GAPDH  | GTCTCCCTGACTTCAACAGCG           | ACCACCCCTGTGCGTAGCCAA          |
| IL6    | AGACAGCACCACCTCTCCTCAG          | TTCTGCAGTGCGCTTTGCTG           |
| IL1β   | CCACAGACCTCCAGGAGAATG           | GTGACAGTGCTGAGCTAGGGAGG        |
| TNFα   | CTCTTTGCGCTGTCGACTTTTG          | ATGGGCTACAGGCTTGTACCTC         |
| CCL2   | GTCTCGGGCCCTCTCTTG              | TTGCGATCTGGCGCTTGGGGGG         |
| CCL5   | CGTCTTGGTTTCTTACATTG            | ACACACTTGGCGCTTGTACCTC         |
| CXCL1  | AGGGAATTCACCCAAGAA              | ACTATGGGGGATGAGCAGGTT          |
| CXCL10 | GGTGAGAAGAGATGCTCGACC          | GTCCATCCCTGGAAAGCAGTCG         |
| p16    | CTCGTGCTGCTGACTCTCAGG           | GGTCGGCGCAGTTGGGGCCTCC         |
| p21    | AGGTCGACCTGGAGACTCTCAGG         | TCCCTTGGAGAGACTCAGGCG          |

Supplementary Table 3. List of antibodies used for western blot.

| Protein       | Dilution       | Vendor                                  | Cat. #   |
|---------------|----------------|-----------------------------------------|----------|
| β-Actin       | 1:1000 in 5% milk | Cell Signaling Technologies, Danvers, MA, USA | 4970S    |
| GAPDH         | 1:1000 in 5% milk | Cell Signaling Technologies, Danvers, MA, USA | 97166S   |
| p-p38 MAPK    | 1:1000 in 5% milk | Cell Signaling Technologies, Danvers, MA, USA | 4511S    |
| p38 MAPK      | 1:1000 in 5% milk | Cell Signaling Technologies, Danvers, MA, USA | 8690S    |
| NF-κB p65     | 1:1000 in 5% milk | BD Biosciences, San Jose, CA, USA       | 610869   |
| TLR4          | 1:200 in 5% milk | Santa Cruz Biotechnology, Inc., Dallas, TX, USA | sc-293072|
| IL1R1         | 1:200 in 5% milk | Santa Cruz Biotechnology, Inc., Dallas, TX, USA | sc-393998|
| IL1R2         | 1:200 in 5% milk | Santa Cruz Biotechnology, Inc., Dallas, TX, USA | sc-376247|
| TNFR1         | 1:200 in 5% milk | Santa Cruz Biotechnology, Inc., Dallas, TX, USA | sc-8436  |
| Histone H3    | 1:1000 in 5% milk | Cell Signaling Technologies, Danvers, MA, USA | 4499S    |
| Anti-Mouse IgG (HRP-Linked) | 1:3000 in 5% milk | Cell Signaling Technologies, Danvers, MA, USA | 7076S    |
| Anti-Rabbit IgG (HRP-Linked) | 1:3000 in 5% milk | Cell Signaling Technologies, Danvers, MA, USA | 7074S    |