**Supplementary Table 1. Lists the antibodies for Western blot and IF stain**

| Antibody name (for Western blot)                                      | Dilution ratio | Manufacture place                        |
|--------------------------------------------------------------------|----------------|------------------------------------------|
| induced nitric oxide synthase (iNOS)                               | 1:1000         | Abcam, Cambridge, MA, USA                |
| CD31                                                                | 1:1000         | Abcam, Cambridge, MA, USA                |
| vascular endothelial growth factor (VEGF)                          | 1:1000         | Abcam, Cambridge, MA, USA                |
| stromal cell-derived factor (SDF)-1α                                | 1:1000         | Cell Signaling, Danvers, MA, USA         |
| cleaved caspase 3                                                  | 1:1000         | Cell Signaling, Danvers, MA, USA         |
| cleaved Poly (ADP-ribose) polymerase (PARP)                        | 1:1000         | Cell Signaling, Danvers, MA, USA         |
| Bcl-2                                                               | 1:1000         | Abcam, Cambridge, MA, USA                |
| matrix metalloproteinase (MMP)-9                                    | 1:3000         | Abcam, Cambridge, MA, USA                |
| mitochondrial Bax                                                  | 1:1000         | Abcam, Cambridge, MA, USA                |
| p-Smad3                                                            | 1:1000         | Cell Signaling, Danvers, MA, USA         |
| p-Smad1/5                                                          | 1:1000         | Cell Signaling, Danvers, MA, USA         |
| high-mobility group protein 1 (HMG-1)                               | 1:1000         | Cell Signaling, Danvers, MA, USA         |
| toll-like receptor (TLR)-4                                          | 1:1000         | Abcam, Cambridge, MA, USA                |
| interleukin (IL)-1β                                                | 1:1000         | Abcam, Cambridge, MA, USA                |
| NOX-1                                                              | 1:1500         | Sigma-Aldrich, St. Louis, Mo, USA         |
| NOX-2                                                              | 1:1000         | Sigma-Aldrich, St. Louis, Mo, USA         |
| oxidized protein (i.e., oxyblot)                                    | 1:150          | Millipore, Billerica, MA, USA            |
| p22phox                                                            | 1:1000         | Abcam, Cambridge, MA, USA                |
| mitochondrial cytochrome C (mit-Cyto-C)                            | 1:2000         | BD Biosciences, San Jose, CA, USA         |
| transforming growth factor (TGF)-β                                  | 1:1000         | Abcam, Cambridge, MA, USA                |
| bone morphogenetic protein (BMP-2)                                  | 1:1000         | Abcam, Cambridge, MA, USA                |
| aquaporin-4 (AQP4)                                                  | 1:1000         | Abcam, Cambridge, MA, USA                |
| γ-H2AX                                                              | 1:1000         | Cell Signaling, Danvers, MA, USA         |

| Antibody name (for IF stain)                                        | Dilution ratio | Manufacture place                        |
|--------------------------------------------------------------------|----------------|------------------------------------------|
| CD11                                                               | 1:200          | Abcam, Cambridge, UK                     |
| F4/80                                                              | 1:100          | Santa Cruz, Santa Cruze, CA, USA         |
| glial fibrillary acid protein (GFAP)                                | 1:500          | Dako, Denmark                            |
| NeuN                                                               | 1:100          | Merck Millipore, Darmstadt, Germany      |
| Nestin                                                             | 1:200          | Abcam, Cambridge, UK                     |
| doublecortin                                                       | 1:200          | Santa Cruz, Santa Cruze, CA, USA         |
| Antibody  | Dilution | Supplier                          |
|----------|----------|----------------------------------|
| CD11     | 1:200    | Abcam, Cambridge, UK             |
| γ-H2AX   | 1:500    | Abcam, Cambridge, UK             |
| F4/80    | 1:100    | Santa Cruz, Santa Cruz, CA, USA  |

IF = immunofluorescent