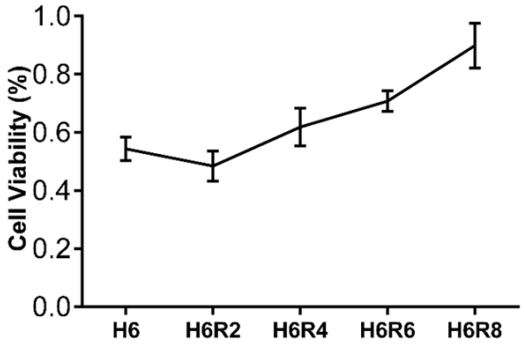
**Supplementary Table 1.** Clinical characteristics of patients with deep PU

| Gender | Age | BMI# ($Kg/m^2$) | Etiology/Past Disease | Multi-morbidity | Ulceration Duration | Ulceration Position | Ulceration Size ($cm^2$) | Wound Infection | Hemoglo-bin (g/L) |
|---|---|---|---|---|---|---|---|---|---|
| M | 18 | 19.3 | Paraplegia | No | 5 m | Sacrococcygeal | 10 × 18 | Yes | 83 |
| M | 29 | 20.8 | Traumatic Brain Injury | No | 3 m | Sacrococcygeal | 6 × 8 | Yes | 93 |
| M | 68 | 27.5 | Postoperative Wound Infection | Yes | 1 m | Sacrococcygeal | 12 × 10 | Yes | 109 |
| F | 19 | 21.3 | Multiple Trauma | Yes | 1 m | Sacrococcygeal | 6 × 7 | Yes | 97 |
| F | 29 | 23.7 | Syringomyelia | No | 12 m | Ischial tuberosity | 5 × 5 | Yes | 90 |
| M | 74 | 27.5 | Paraplegia | No | 3 m | Sacrococcygeal | 11 × 10 | Yes | 98 |
| M | 43 | 23.3 | Paraplegia | No | 6 m | Ischial tuberosity | 11 × 10 | Yes | 134 |
| M | 26 | 39.2 | Severe Acute Pancreatitis | Yes | 3 m | Sacrococcygeal | 7 × 8 | Yes | 97 |
| F | 39 | 22.1 | Paraplegia | No | 3 m | Sacrococcygeal | 8 × 8 | Yes | 101 |
| M | 40 | 25.6 | Paraplegia | No | 8 m | Greater trochanter | 10 × 8 | Yes | 145 |
| M | 32 | 22.3 | Paraplegia | Yes | 10 m | Ischial tuberosity | 6 × 5 | Yes | 68 |

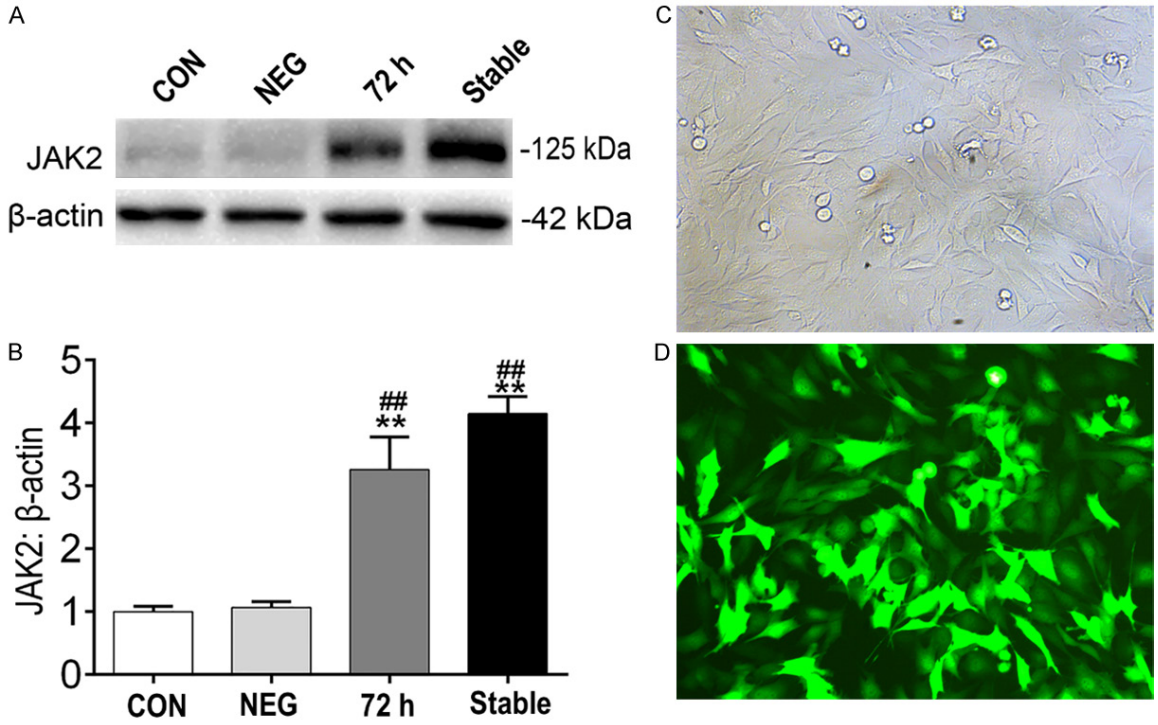
#: Body Mass Index.

**Supplementary Table 2.** Primary antibodies used in this study

| Cat. No. | Antibody | Source | Manufacturer | Town & State | Country | Dilution |
|---|---|---|---|---|---|---|
| 3230 | JAK2 | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 4406 | p-JAK2 (Tyr1007) | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 4904 | STAT3 | Rabbit | CST | Beverly, MA | USA | 1:2000 |
| 9145 | p-STAT3 (Tyr705) | Rabbit | CST | Beverly, MA | USA | 1:2000 |
| 4691 | AKT (pan) | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 4060 | p-AKT (Ser473) | Rabbit | CST | Beverly, MA | USA | 1:2000 |
| 4695 | ERK1/2 | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 4370 | p-ERK1/2(Thr202/Tyr204) | Rabbit | CST | Beverly, MA | USA | 1:2000 |
| 2983 | mTOR | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 5536 | p-mTOR (Ser2448) | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 2895 | CHOP | Mouse | CST | Beverly, MA | USA | 1:1000 |
| 9662 | Caspase-3 | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 2870 | Bcl-2 | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 50599-2-Ig | Bax | Rabbit | ProteinTech | Chicago, IL | USA | 1:2000 |
| 9661 | Cleaved Caspase-3 | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 3495 | Beclin-1 | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 5114 | SQSTM1/P62 | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 12994 | ATG5 | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 2775 | LC3B | Rabbit | CST | Beverly, MA | USA | 1:1000 |
| 4970 | β-Actin | Rabbit | CST | Beverly, MA | USA | 1:1000 |




**Supplementary Figure 1.** Cell viability assay of C2C12 myoblasts exposed to OGD with different time periods of reoxygenation.




**Supplementary Figure 2.** Validation of JAK2 overexpression in C2C12 myoblast cells. A. Immunoblot images of JAK2 and β-actin in C2C12 myoblasts, which were transfected with lentivirus carrying a negative control (NEG) plasmid and JAK2 plasmid after 72 h (72 h) or selection with puromycin (Stable). B. Relative quantification of JAK2 after normalization by β-actin, the data were derived from three independent experiments (Means ± SD; $^{**}P < 0.01$ versus Control; $^{\#\#}P < 0.01$ versus NEG). C. Light microscope photographs of C2C12 myoblast cells. D. Fluorescent photographs of EGFP expression in JAK2-overexpressed C2C12 myoblast cells.