**Supplementary data**

**Aβ-induced damage memory in hCMEC/D3 cell mediated by sirtuin-1**

Running title: damage memory mediated by SIRT1

Authors: HaoChen Liu1, Yixuan Zhang1, Hong Zhang1, Sheng Xu1, Huimin Zhao1, XiaoQuan Liu1,\*

\* *Corresponds author*

Address:

1 Center of Drug Metabolism and Pharmacokinetics, China Pharmaceutical University, Nanjing, 210009, China

Tel.: + 86-25-83271260

*E-Mail address: haochenliu@cpu.edu.cn (HCL); yxzhang@stu.cpu.edu.cn (YXZ); 296481679@qq.com (HZ); 570302057@qq.com (SX); 1060046870@qq.com (HMZ)* lxq@cpu.edu.cn *(XQL, Corresponds author).*

|  |
| --- |
|  |
| Figure 1 the time course of *p66*SHC levels in control group,  group and damage memory group. |

|  |
| --- |
|  |
| Figure 2 A: the change of *p66*SHC in SRT2104 treated hCMEC/D3 cell. B: the change of *p66*SHC in NAD+ supplement treated hCMEC/D3 cell. C: the change of *p66*SHC in EX527 treated hCMEC/D3 cell. D: the results of *p66*SHC level in the experimental validation of cerebrovascular endothelial cell damage memory formation time. |

|  |
| --- |
|  |
| Figure 3 A: the change of Mn-SOD in SRT2104 treated hCMEC/D3 cell. B: the change of Mn-SOD in NAD+ supplement treated hCMEC/D3 cell. C: the change of Mn-SOD in EX527 treated hCMEC/D3 cell. D: the results of Mn-SOD level in the experimental validation of cerebrovascular endothelial cell damage memory formation time. |

|  |
| --- |
|  |
| Figure 4 the intracellular A$β$ accumulation in $Aβ$ group and control group. |