Brusatol inhibits HIF-1 signaling pathway and suppresses glucose uptake under hypoxic conditions in HCT116 cells

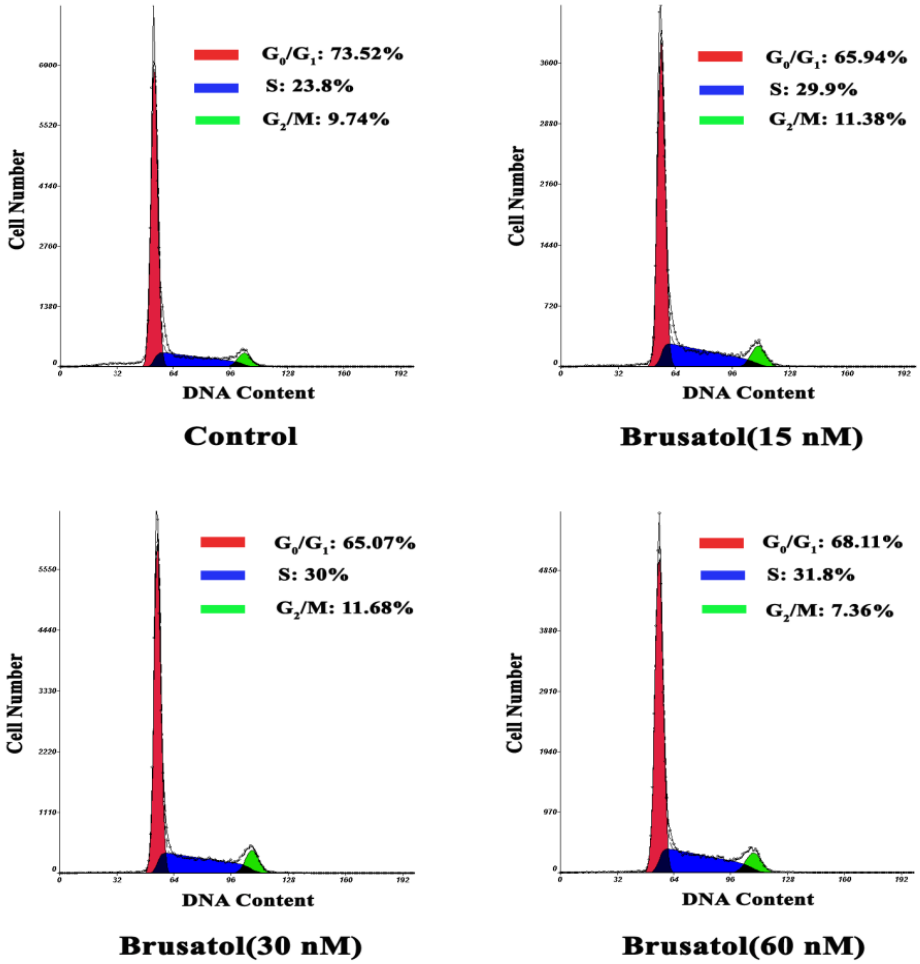
Yapeng Lu[1], Bo Wang[1], Qian Shi[2], Xueting Wang[1], Dang Wang[1], Li Zhu[1,*]

[1] Institute of Nautical Medicine, Nantong University, Nantong 226019, China

[2] Central laboratory, The first people's hospital of Huzhou, Huzhou 313000, China

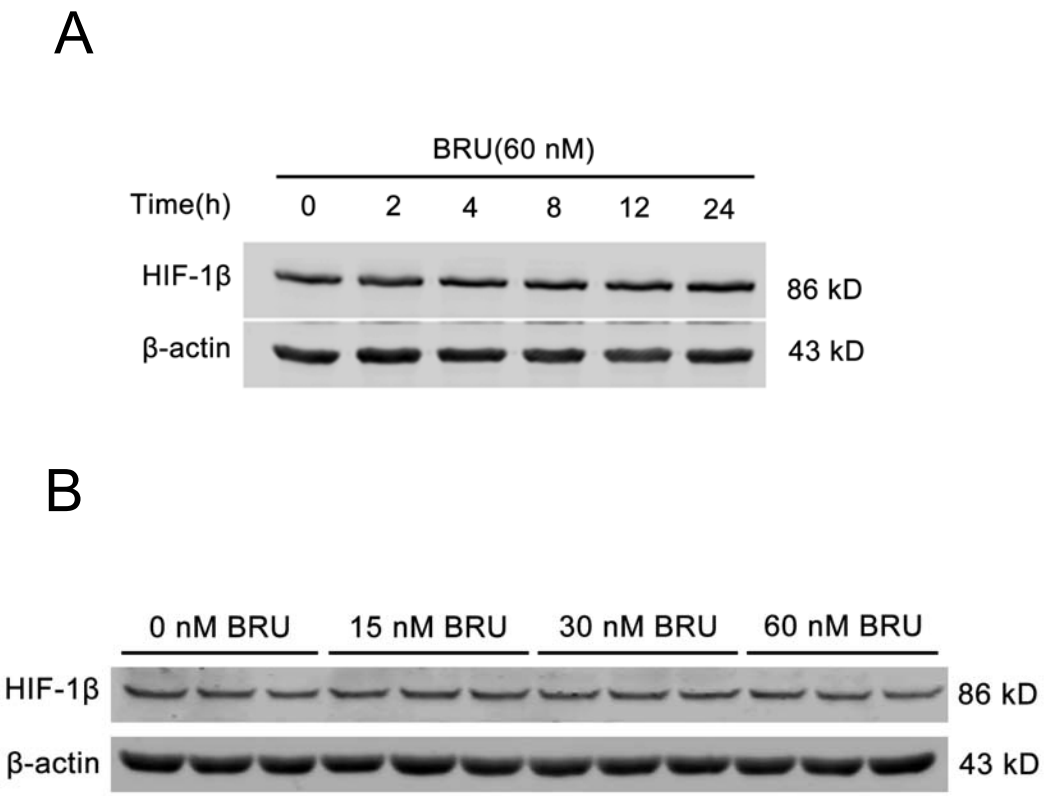
Supplementary information

Supplementary figure 1



Supplementary figure 1: The effect of BRU on cell cycle in HCT116 cells. HCT116 cells were treated with BRU (15, 30, 60 nM) for 24 h, cell cycle distribution was detected by flow cytometry.

Supplementary figure 2



Supplementary figure 2: BRU does not affect the expression level of HIF-1β in HCT116 cells in hypoxic conditions. (A) HCT116 cells were treated with 60 nM BRU for different time under hypoxia (1% O_2) and the quantity of HIF-1α protein was analyzed by Western blot. (B) HCT116 cells were treated with various concentrations of BRU for 4 h under hypoxia (1% O_2) and the quantity of HIF-1α protein was analyzed by Western blot.

The figures of full length blots

Full-length gels and blots for figure 2

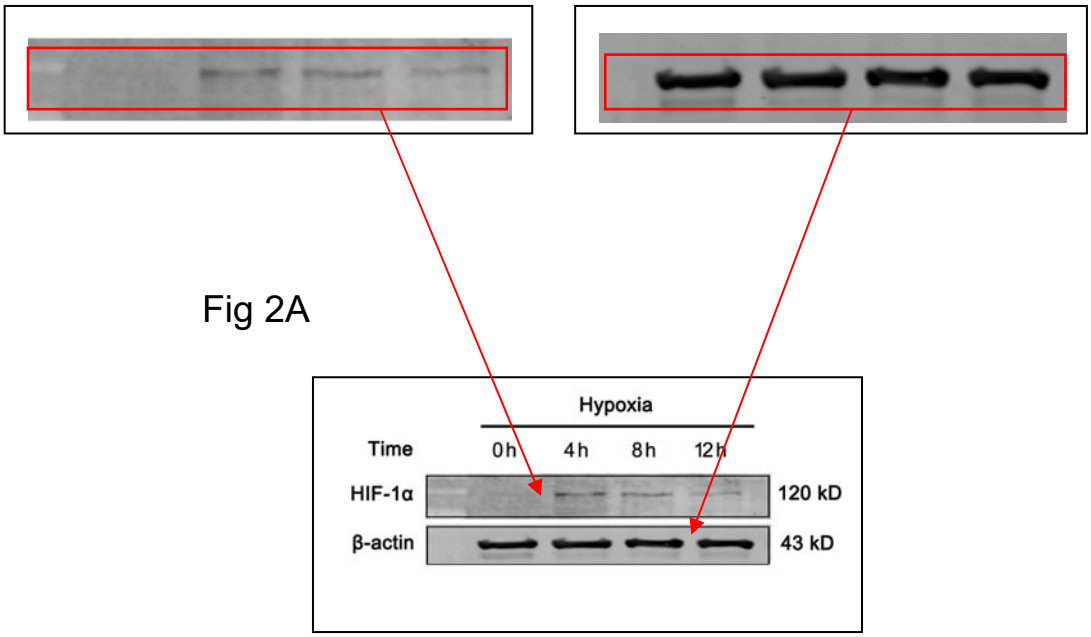


Fig 2A

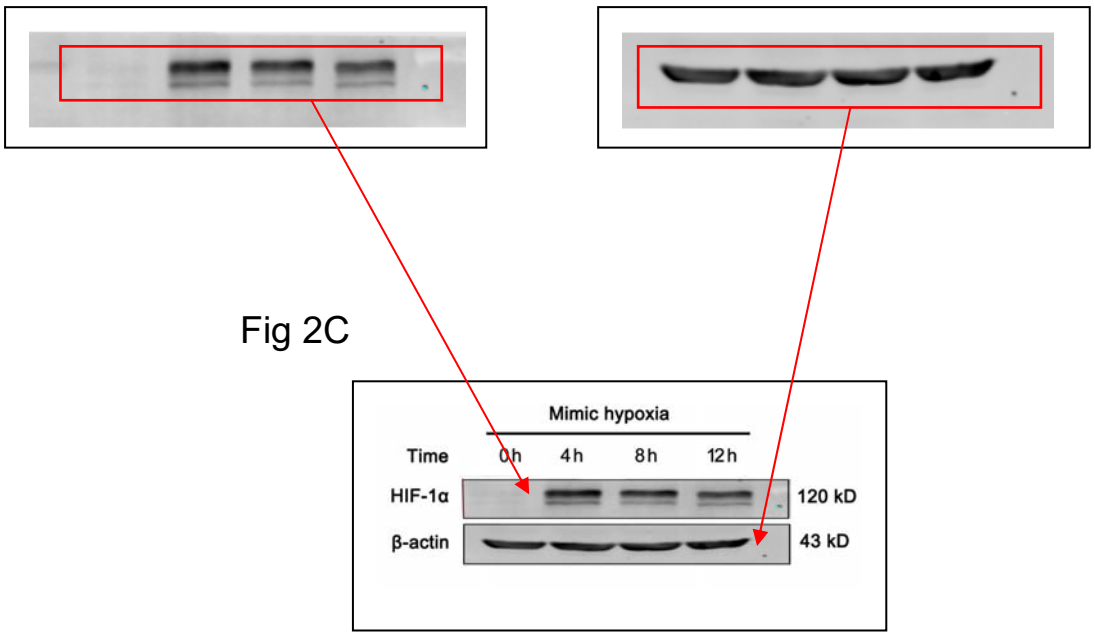


Fig 2C

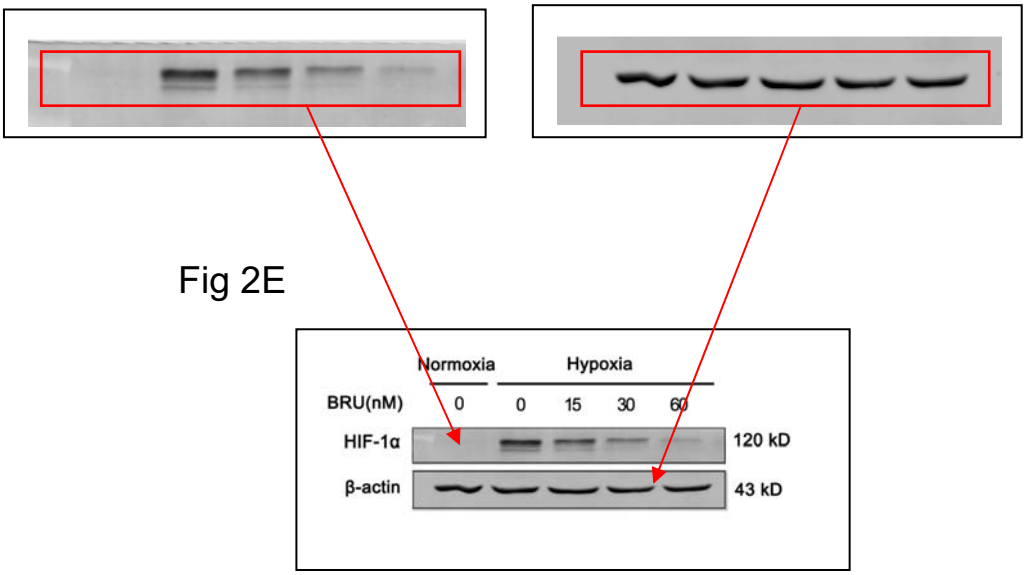

Normoxia
Hypoxia
BRU(nM)
0
0
15
30
60
HIF-1α
120 kD
β-actin
43 kD

Fig 2E

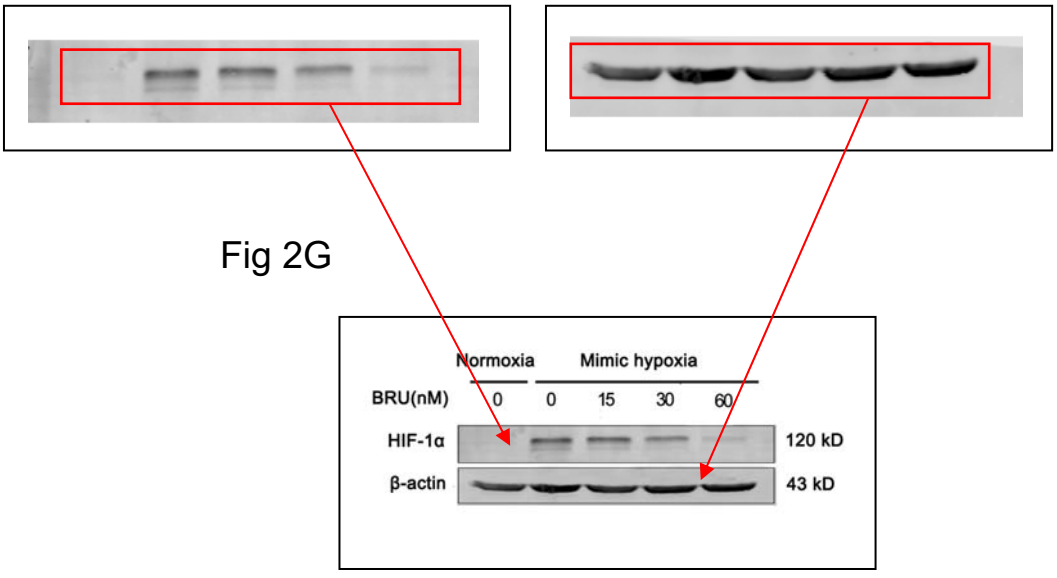

Normoxia
Mimic hypoxia
BRU(nM)
0
0
15
30
60
HIF-1α
120 kD
β-actin
43 kD

Fig 2G

Full-length gels and blots for figure 4

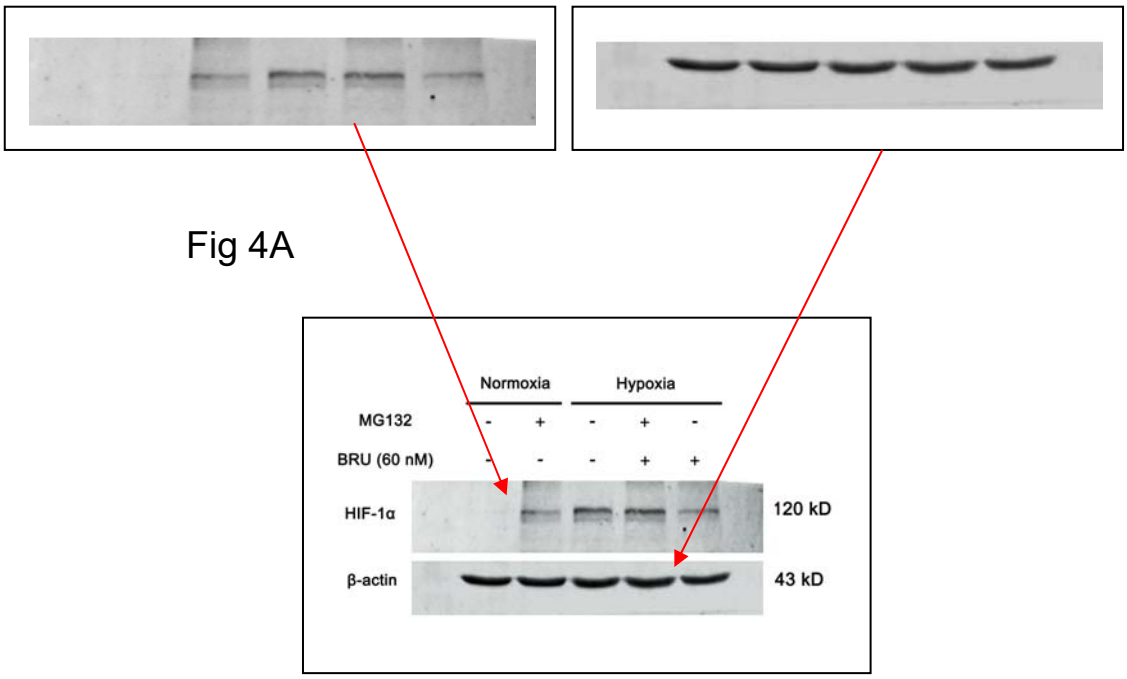


Fig 4A

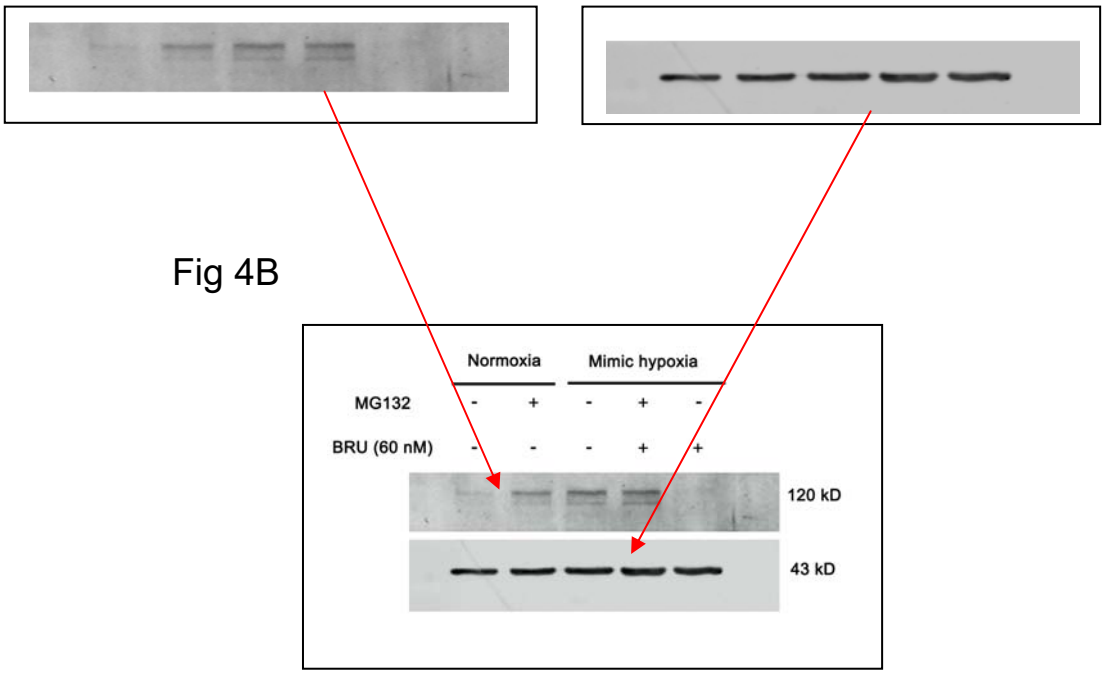


Fig 4B

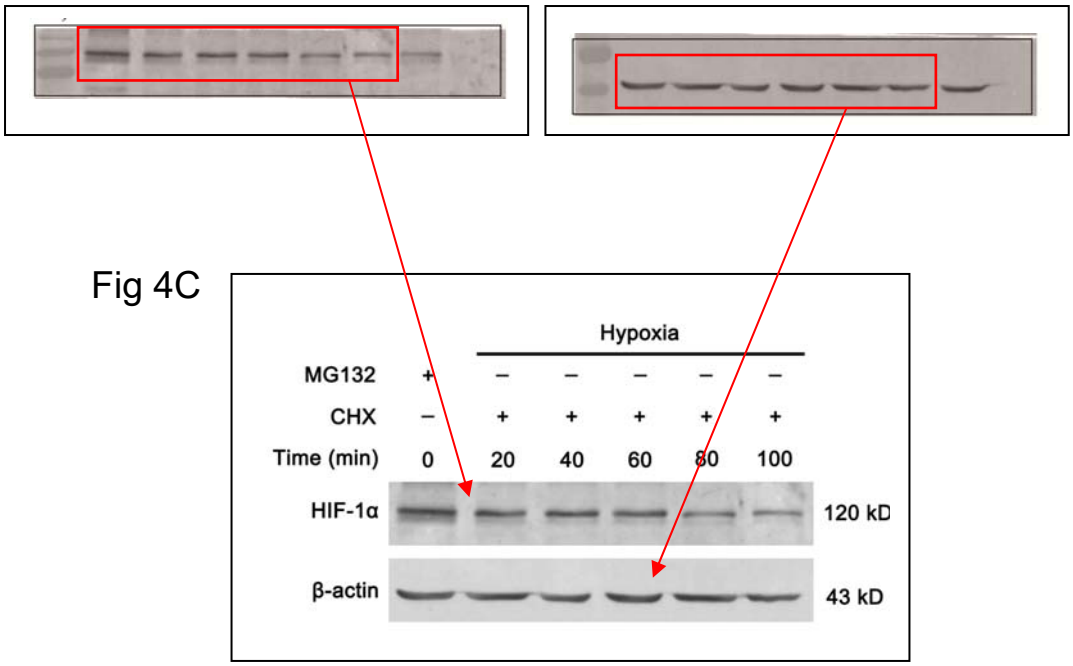

Hypoxia
MG132 + – – – – –
CHX – + + + + +
Time (min) 0 20 40 60 80 100
HIF-1α
120 kD
β-actin
43 kD

Fig 4C

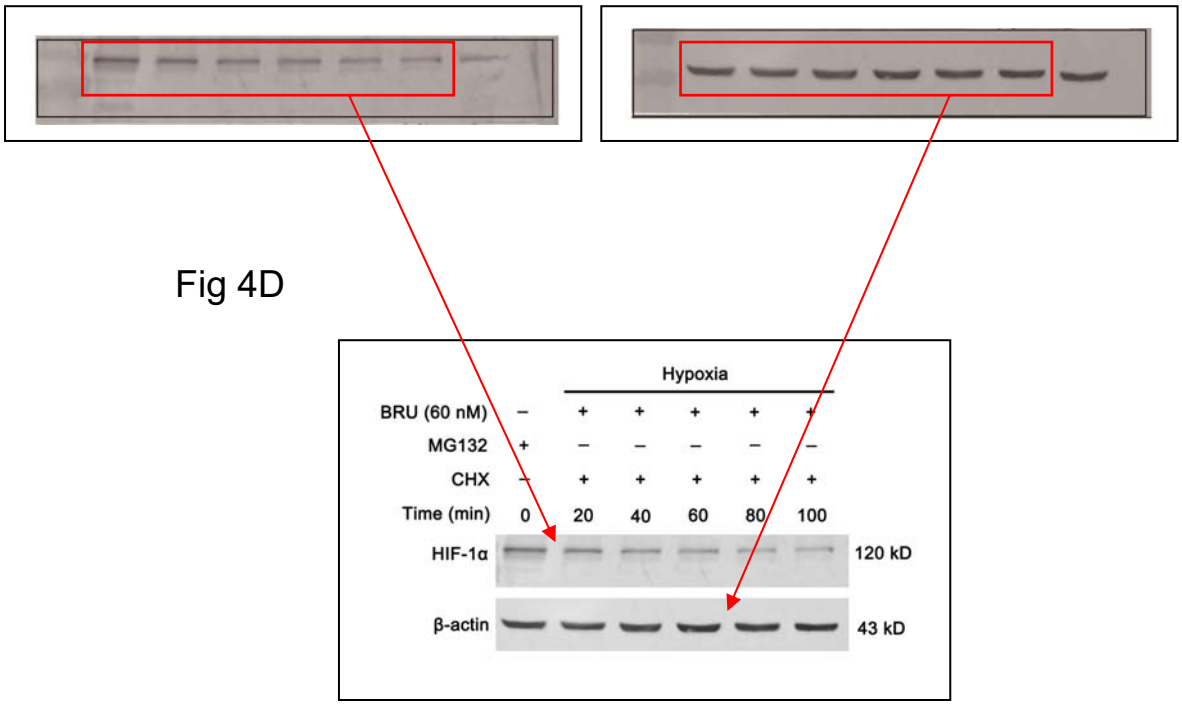

Hypoxia
BRU (60 nM) – + + + + +
MG132 + – – – – –
CHX – + + + + +
Time (min) 0 20 40 60 80 100
HIF-1α
120 kD
β-actin
43 kD

Fig 4D

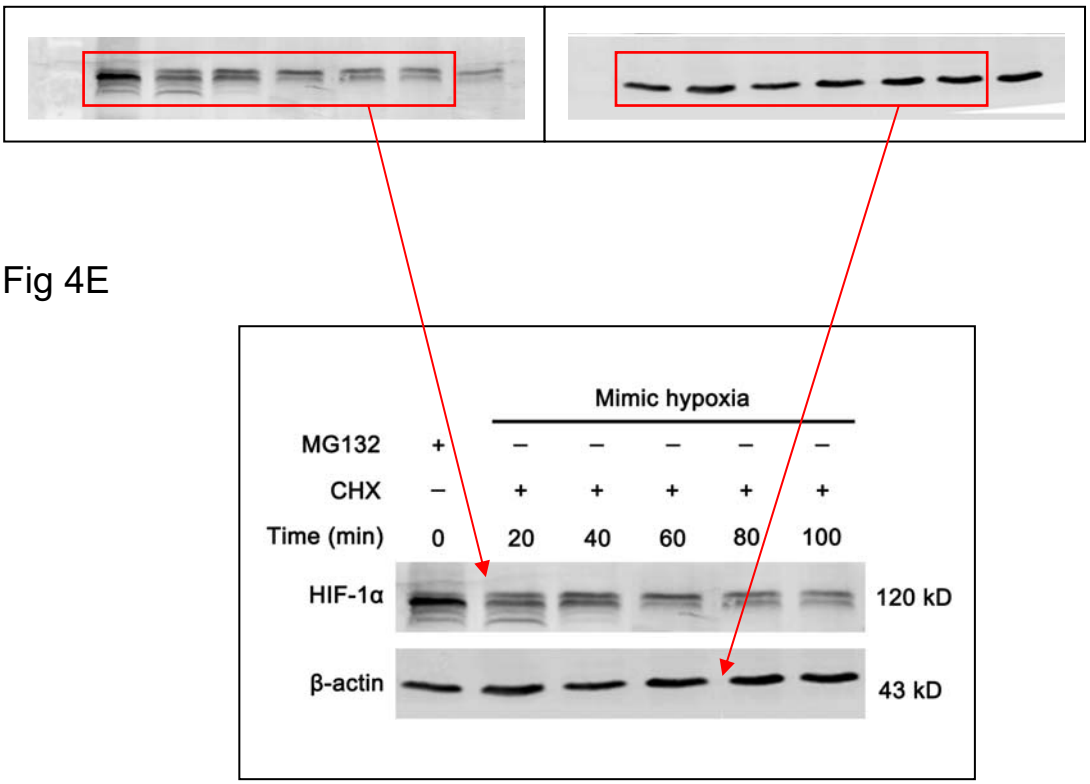

Mimic hypoxia
MG132 + – – – – –
CHX – + + + + +
Time (min) 0 20 40 60 80 100
HIF-1α
120 kD
β-actin
43 kD

Fig 4E

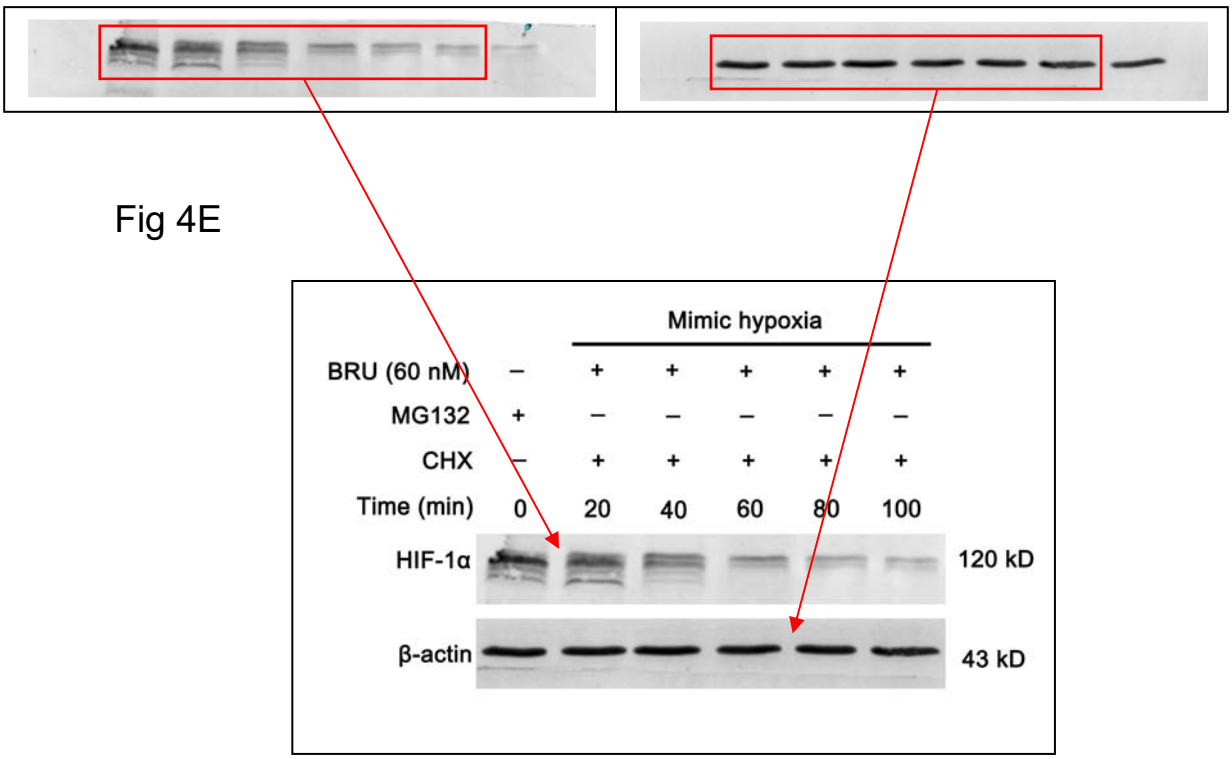

Mimic hypoxia
BRU (60 nM) – + + + + +
MG132 + – – – – –
CHX – + + + + +
Time (min) 0 20 40 60 80 100
HIF-1α
120 kD
β-actin
43 kD

Fig 4E

Full-length gels and blots for figure 6

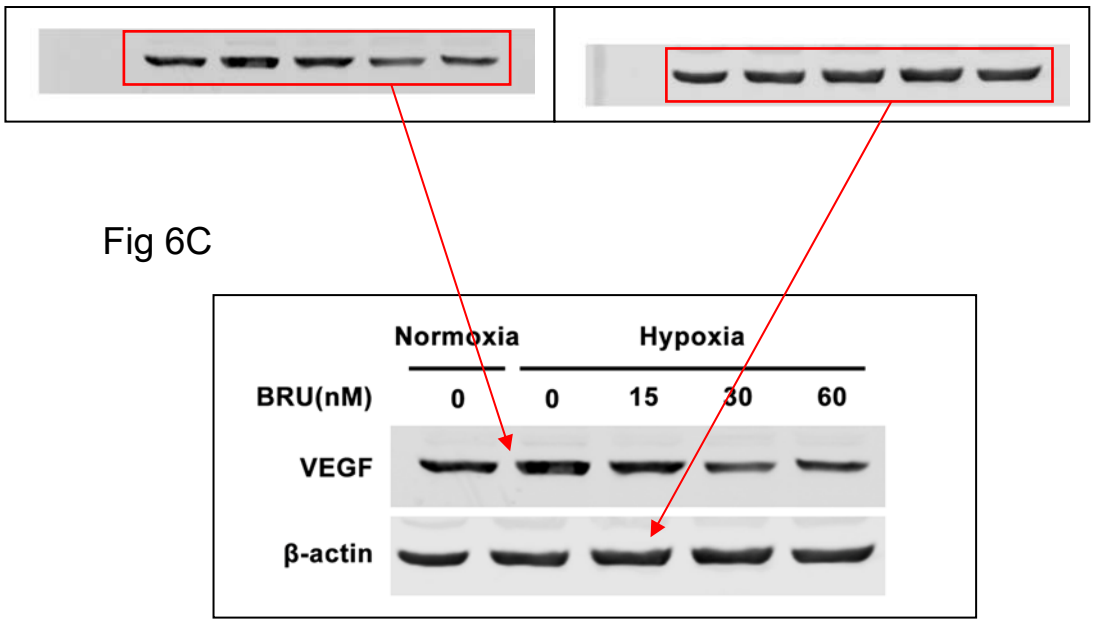


Fig 6C

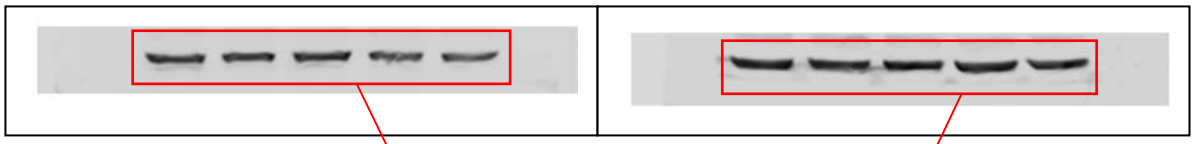
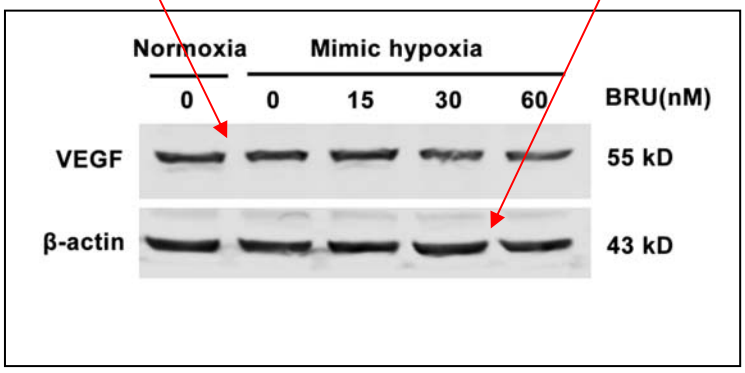


Fig 6D



Full-length gels and blots for figure 7

Fig 7A