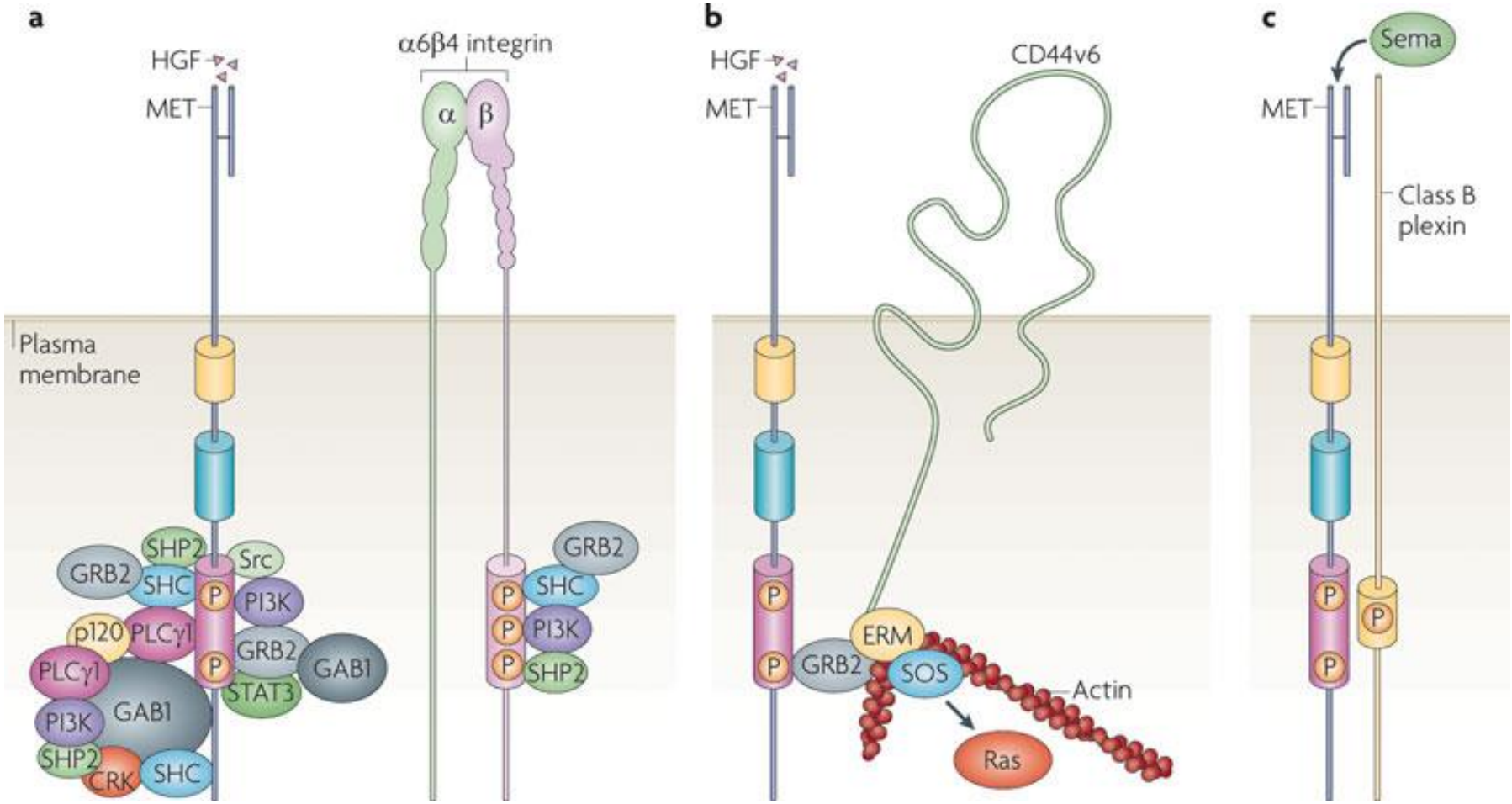
Exogenous HGF prevents cardiomyocytes from apoptosis after hypoxia via up-regulating cells autophagy

Yunle Wang, Zhijian Yang

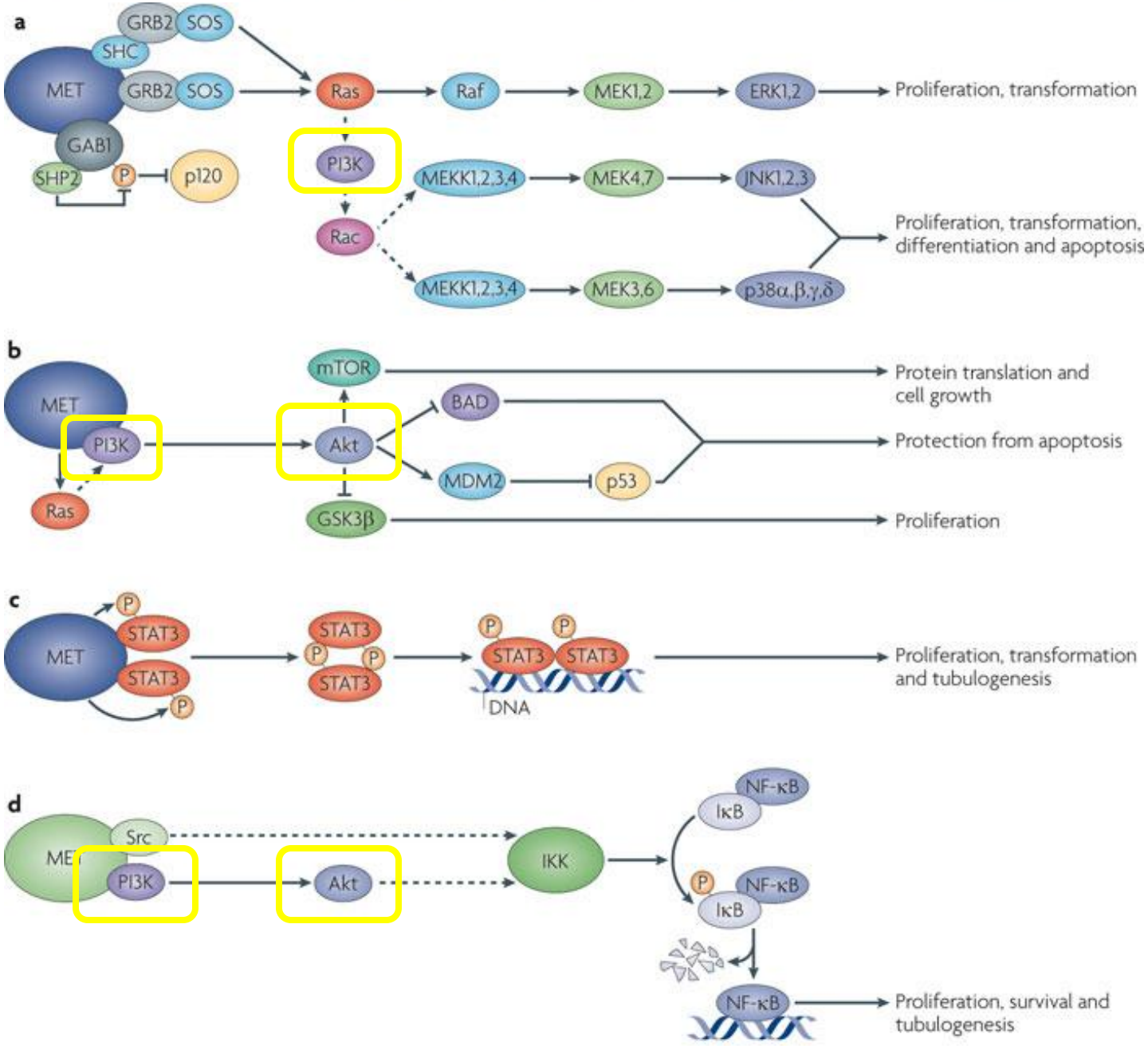
Department of Cardiology, The First Affiliated Hospital of Nanjing Medical University, Nanjing, People's Republic of China

Introduction



Trusolino L, Bertotti A, Comoglio PM. Nature reviews Molecular cell biology 2010;11:834-848.

Introduction



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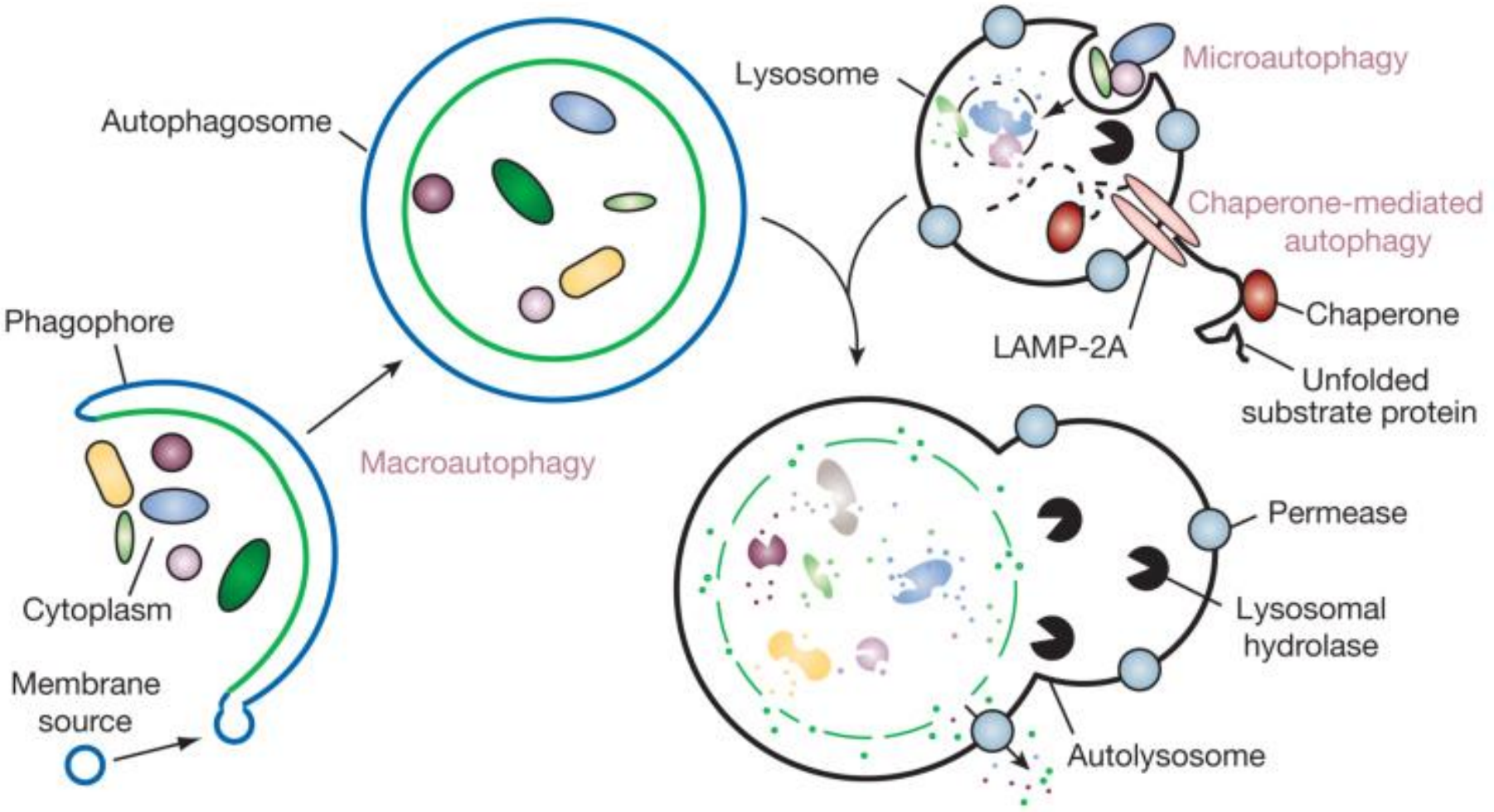
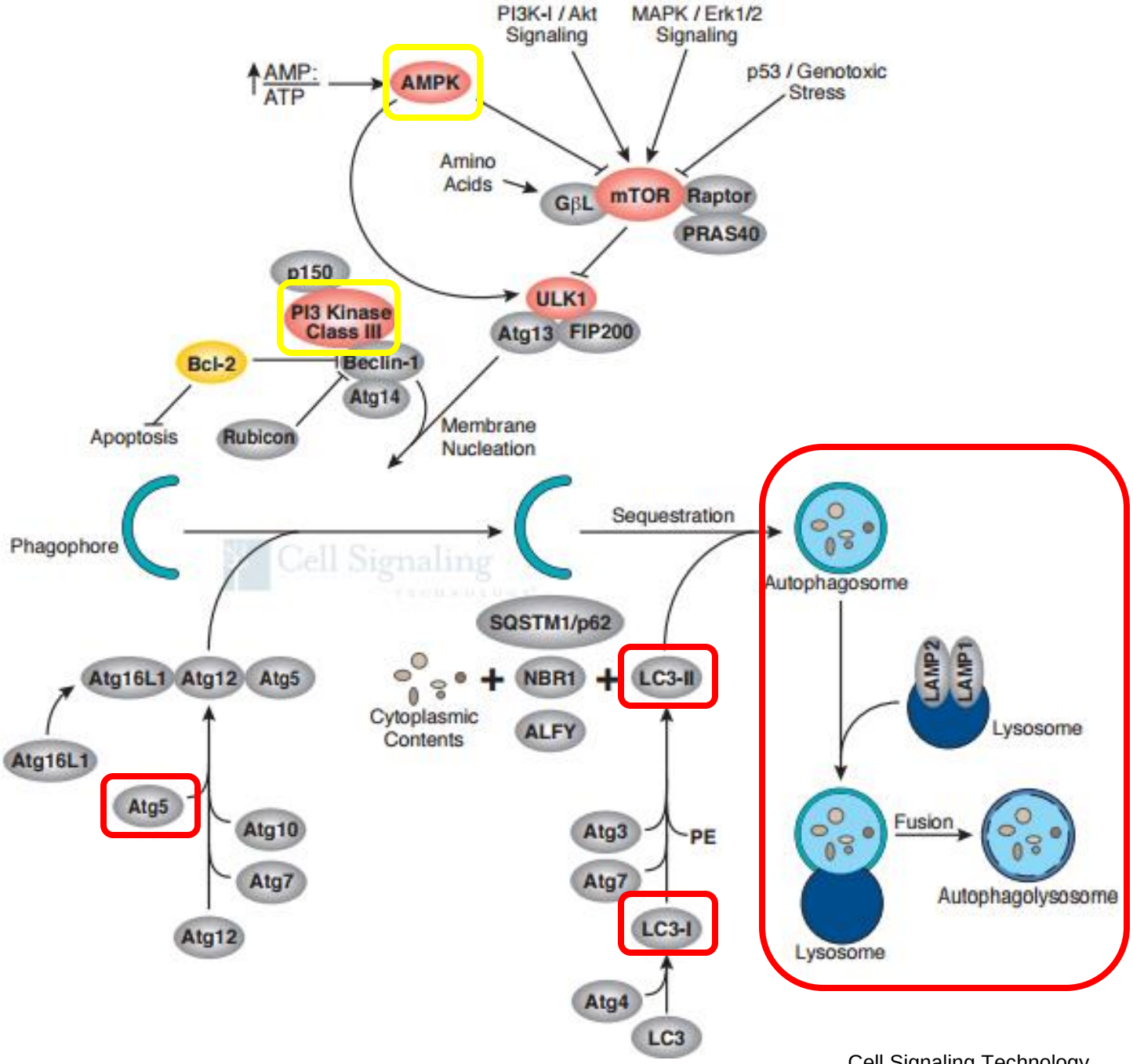
Introduction



Mizushima N, Levine B, Cuervo AM, Klionsky DJ. Nature 2008;451:1069-1075

Introduction



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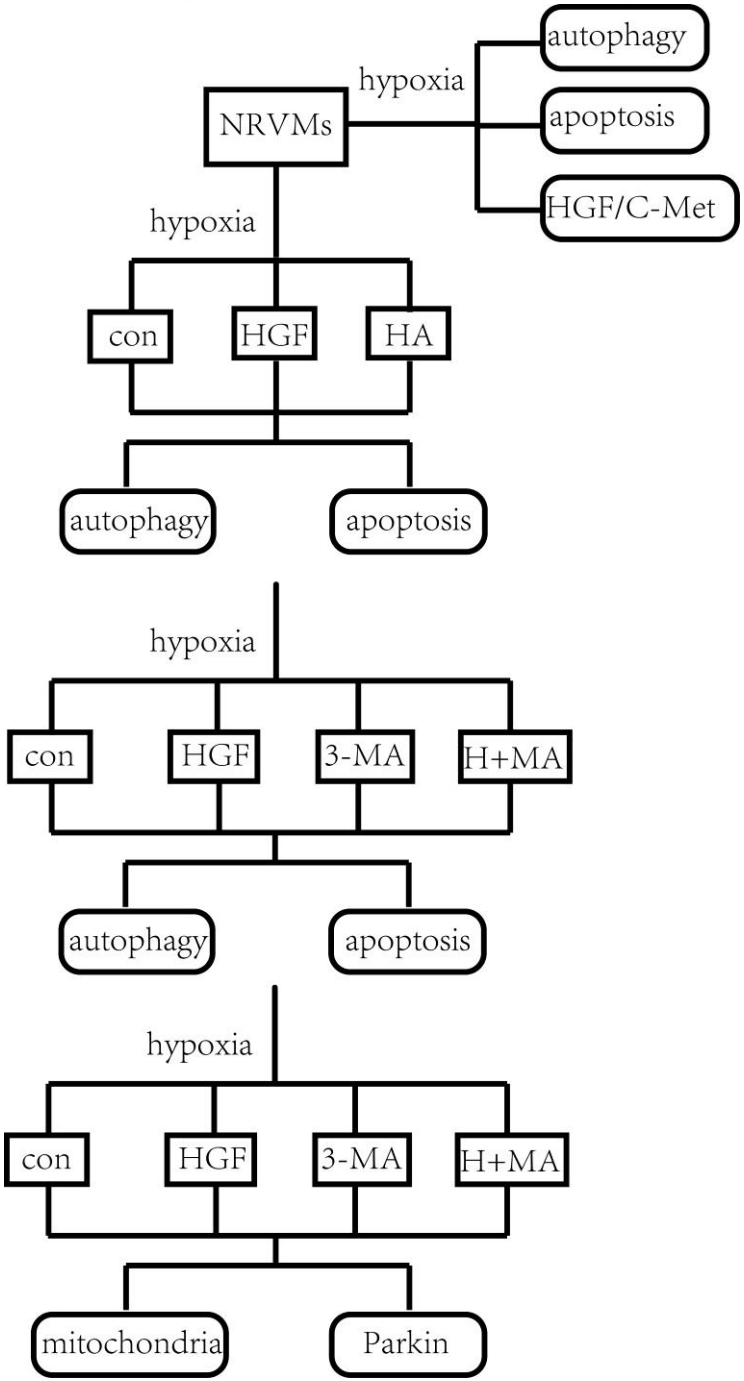
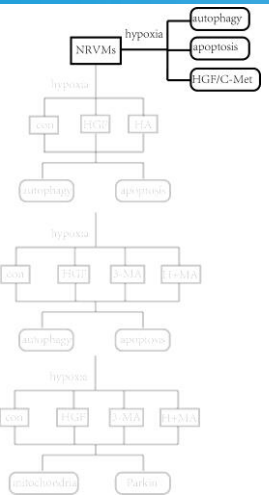
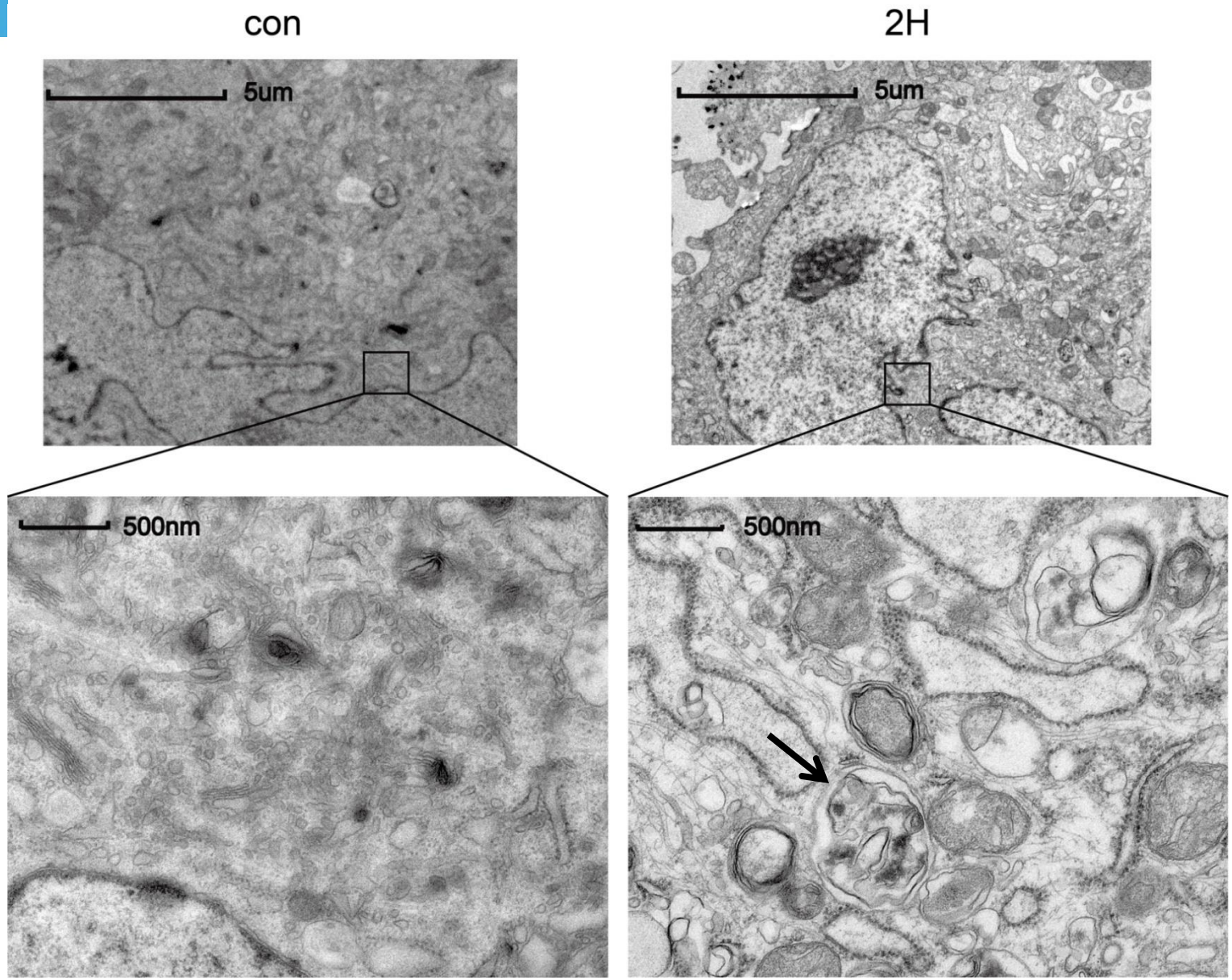

NRVMs
hypoxia
autophagy
apoptosis
HGF/C-Met
hypoxia
con
HGF
HA
autophagy
apoptosis
hypoxia
con
HGF
3-MA
H+MA
autophagy
apoptosis
hypoxia
con
HGF
3-MA
H+MA
mitochondria
Parkin

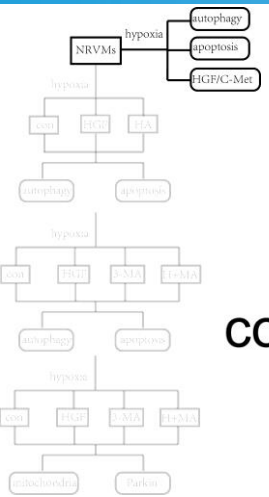
Results





Results of TEM determined the formation of autophagosome in cardiomyocytes at 2h of hypoxia.

Results



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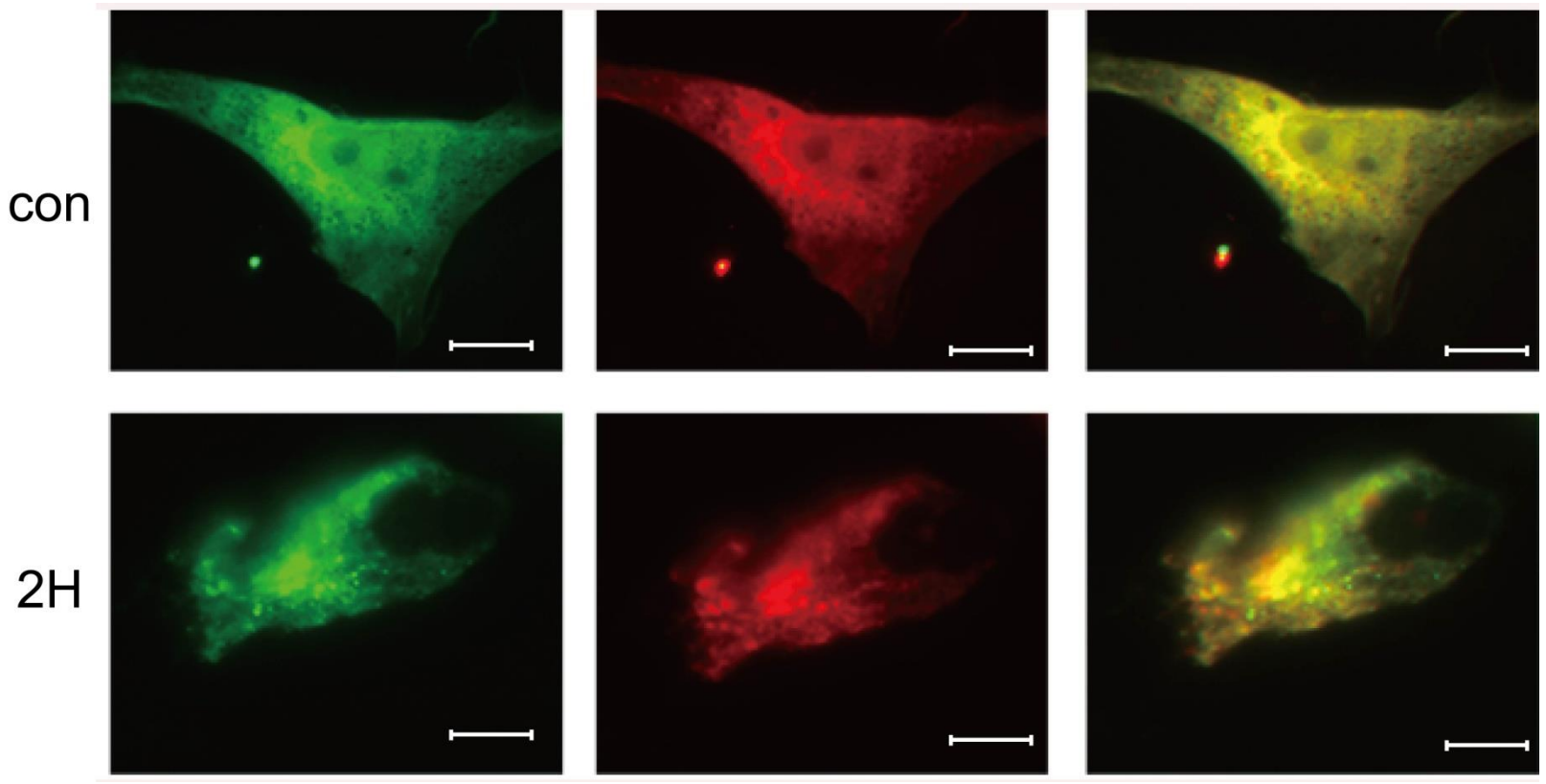
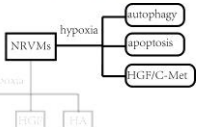
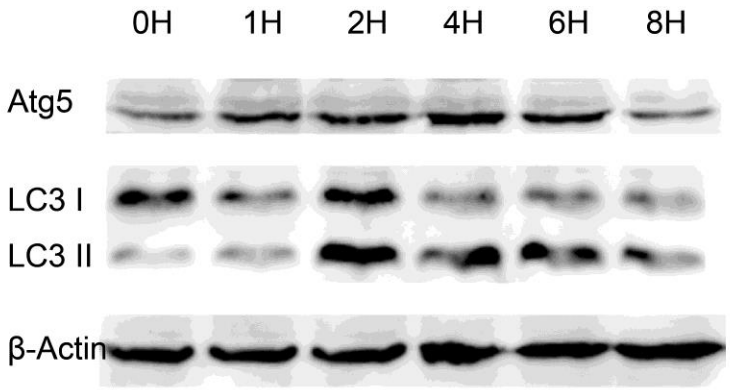
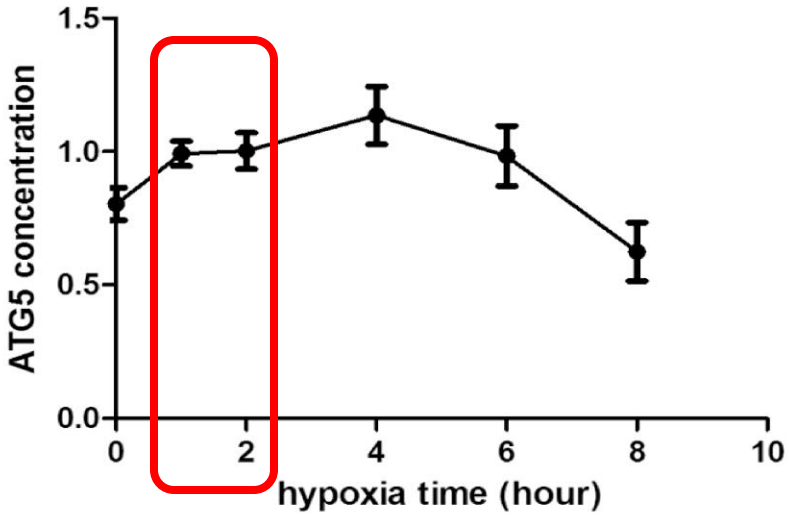


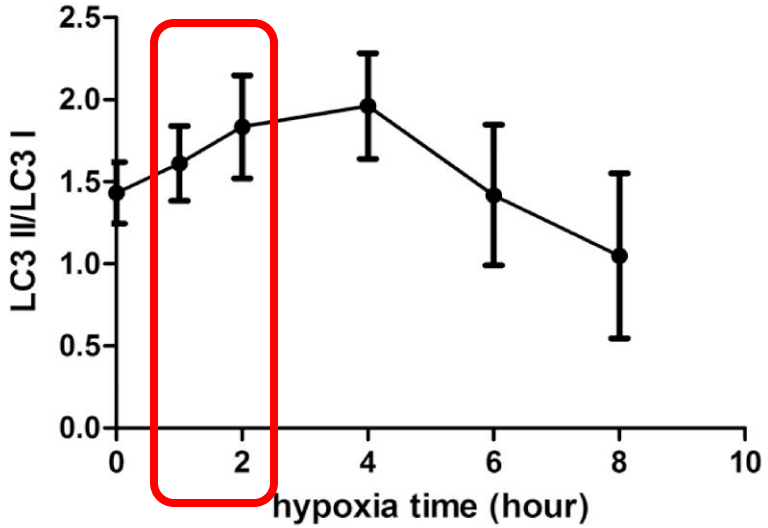
Results of mRFP-GFP-LC3 adenovirus infection indicated the formation of both autophagosome and autolysosome

Results



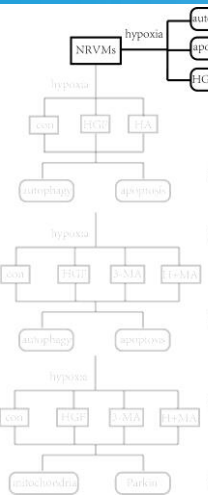


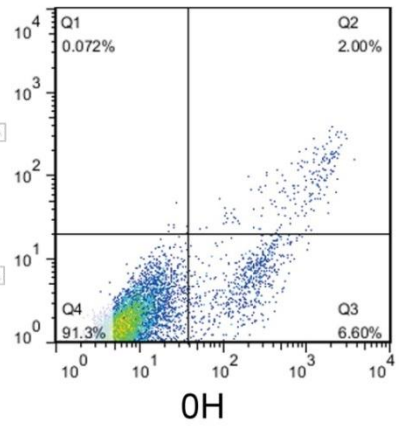




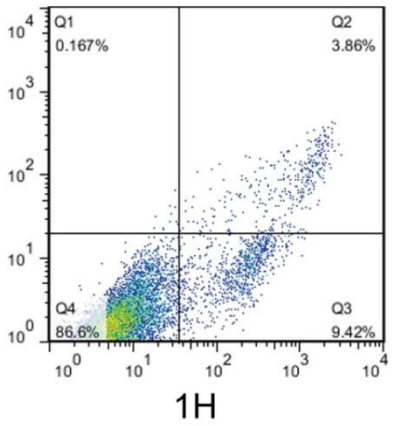
Results of WB in detecting the change of autophagy process in different time points of hypoxia

Results





0H



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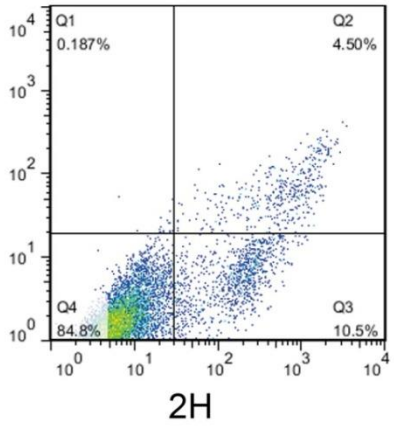

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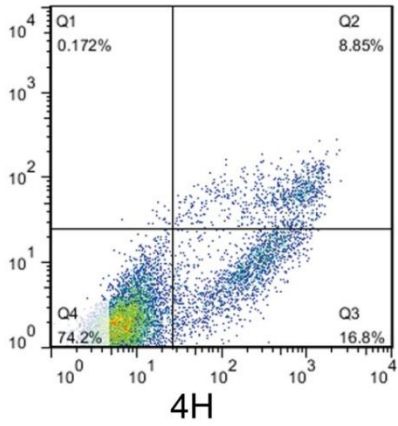

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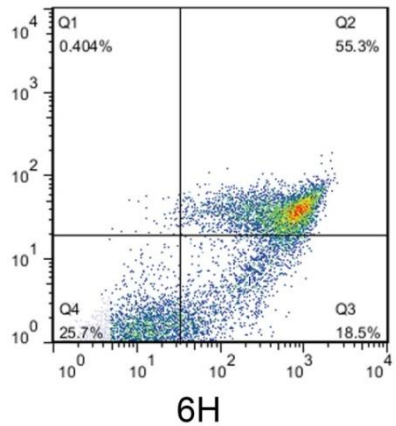

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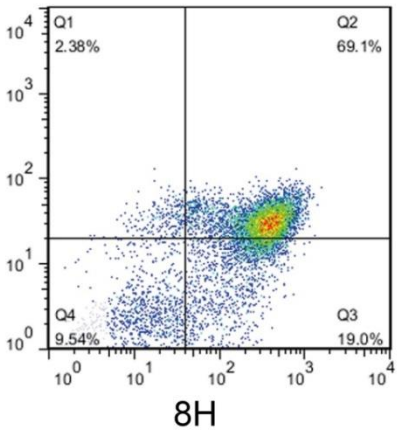

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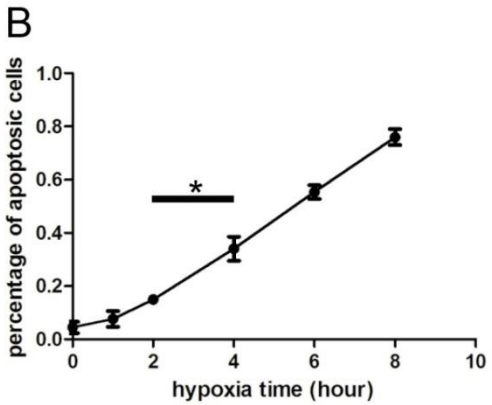

Results of Flow cytometry in detecting cell apoptosis at different time points after hypoxia

Results

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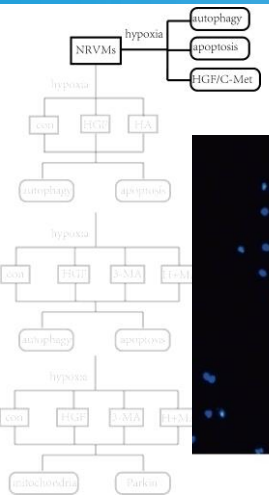

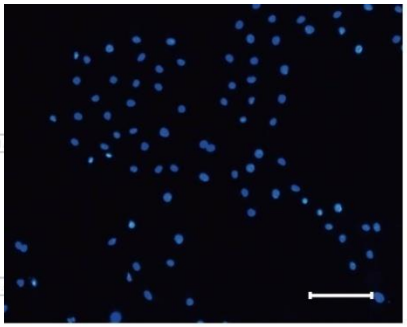

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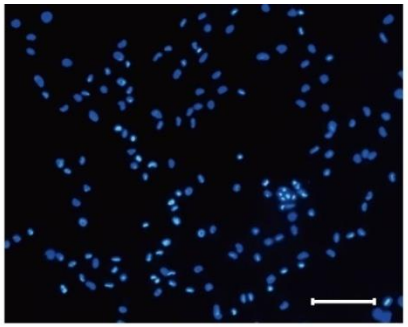

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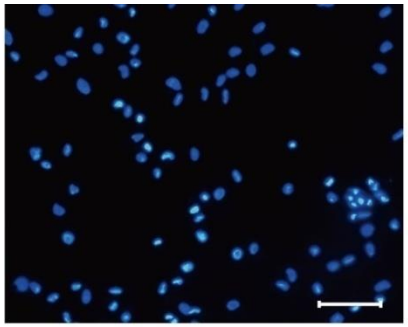

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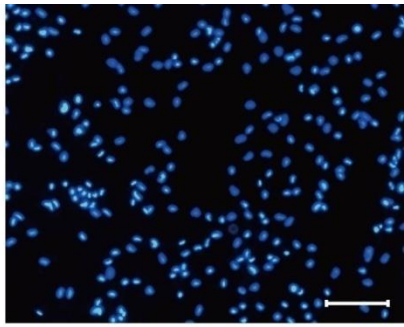

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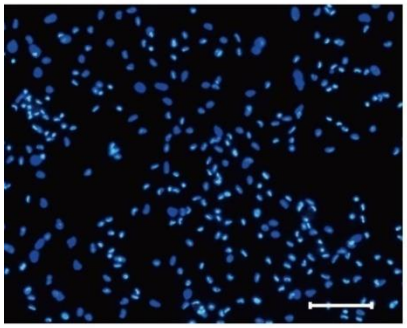

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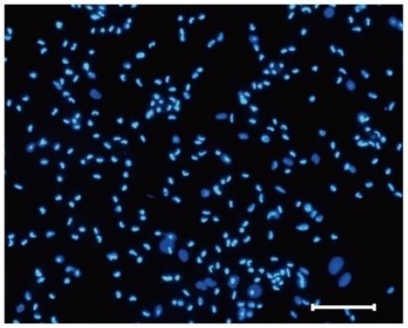

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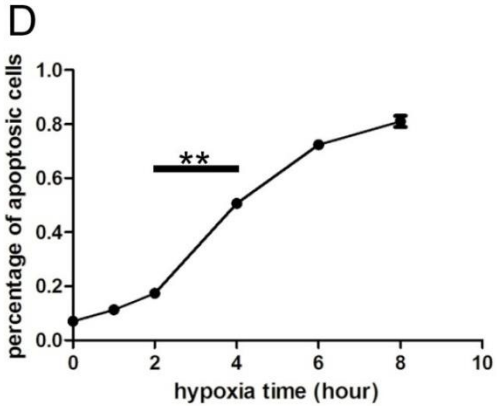
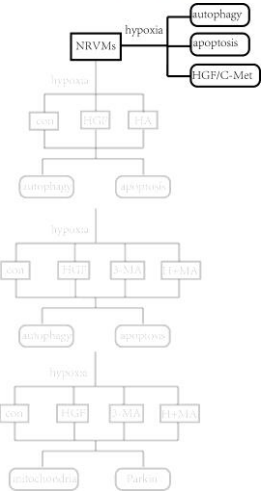
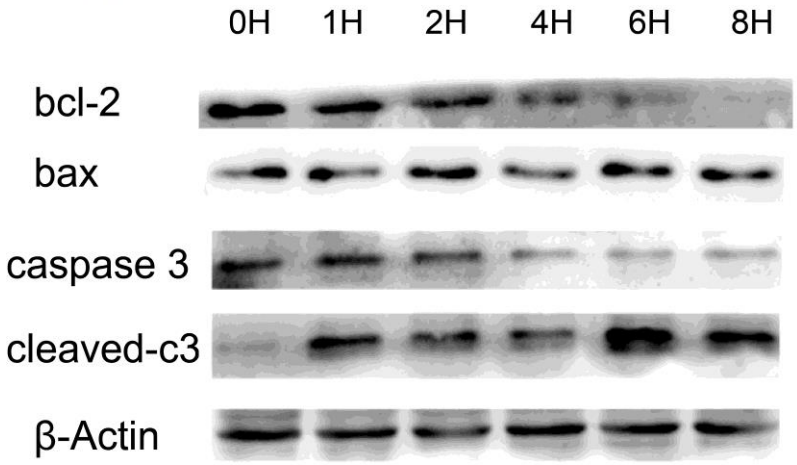
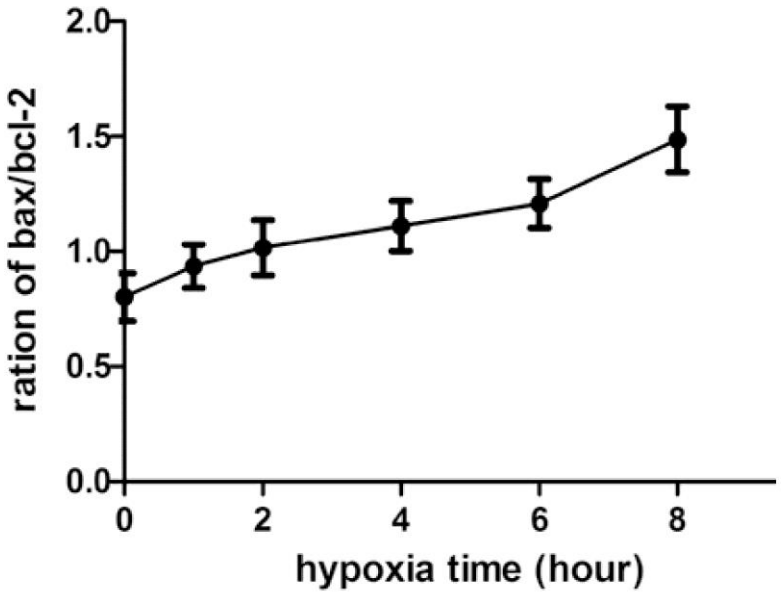


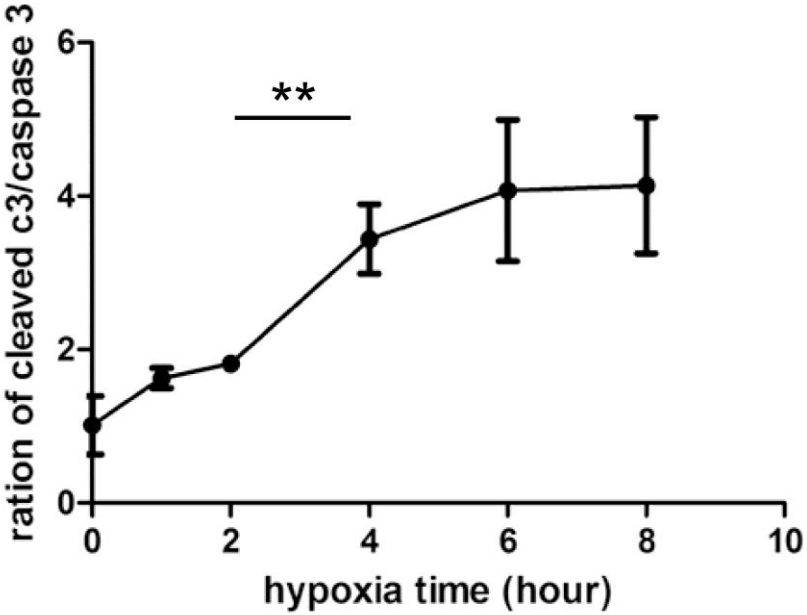
Results of Hochest in detecting cell apoptosis at different time points after hypoxia

Results



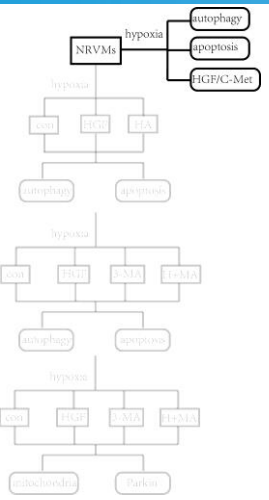


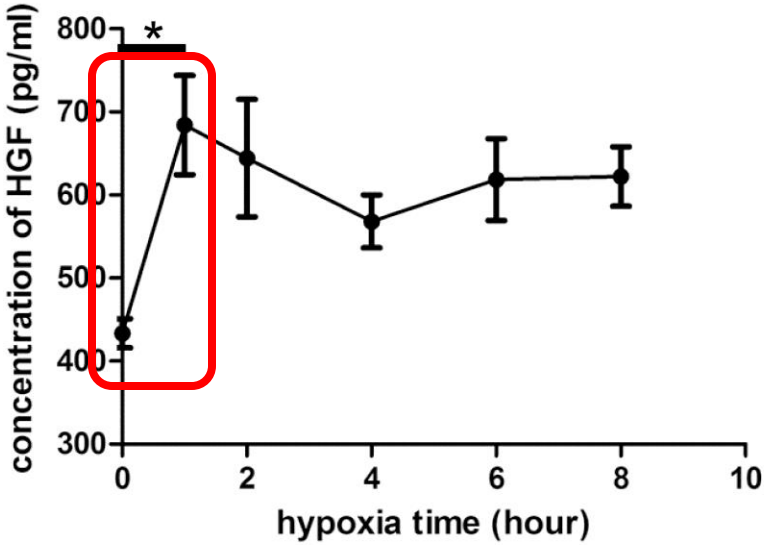


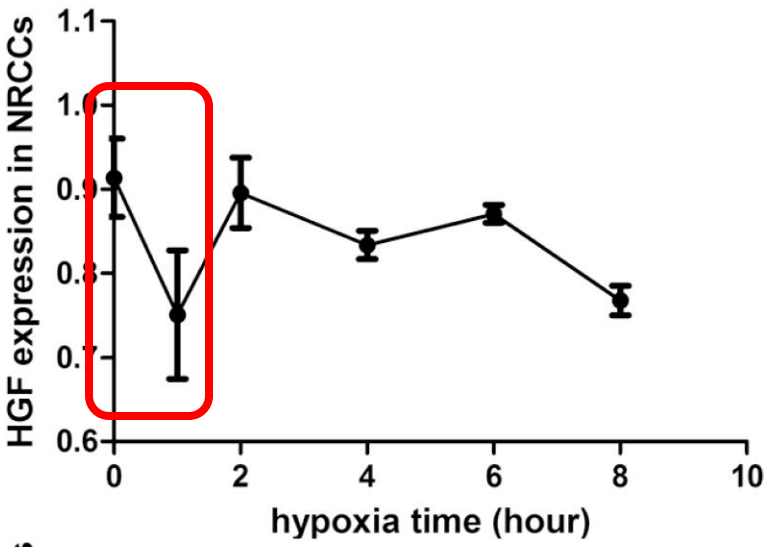


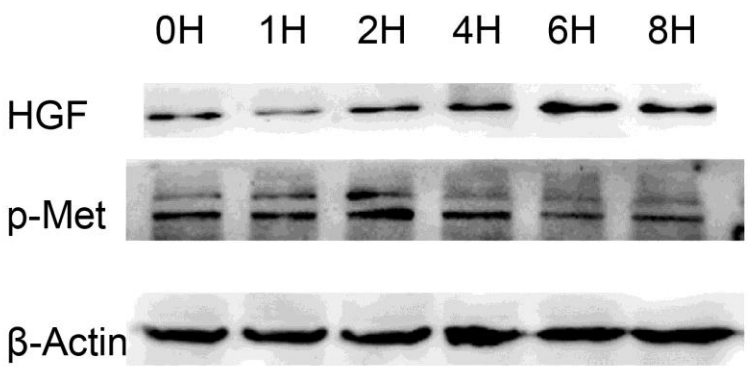
Results of WB in detecting cell apoptosis at different time points after hypoxia

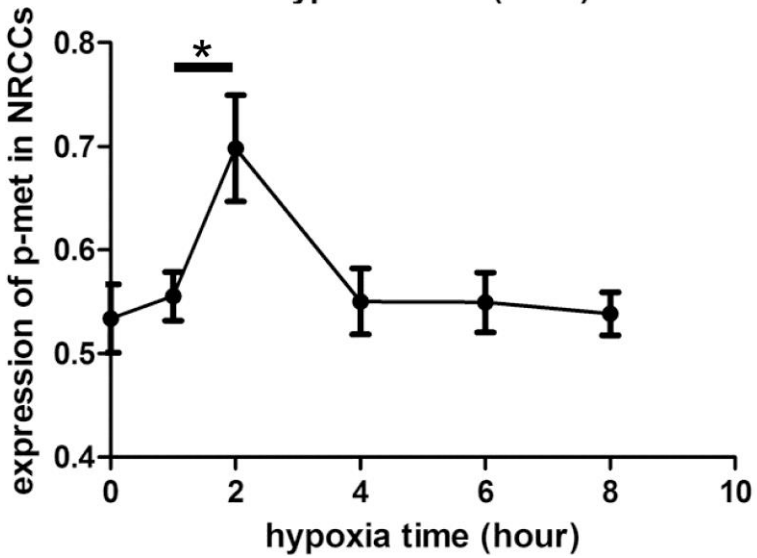
Results





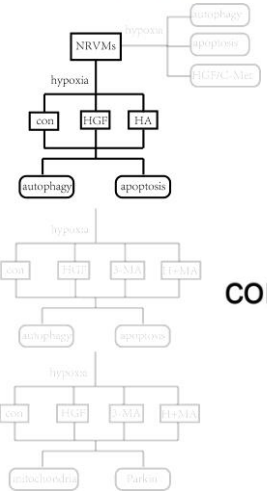






Results of Elisa and WB in detecting and the release of HGF and the expression of HGF and p-Met

Results



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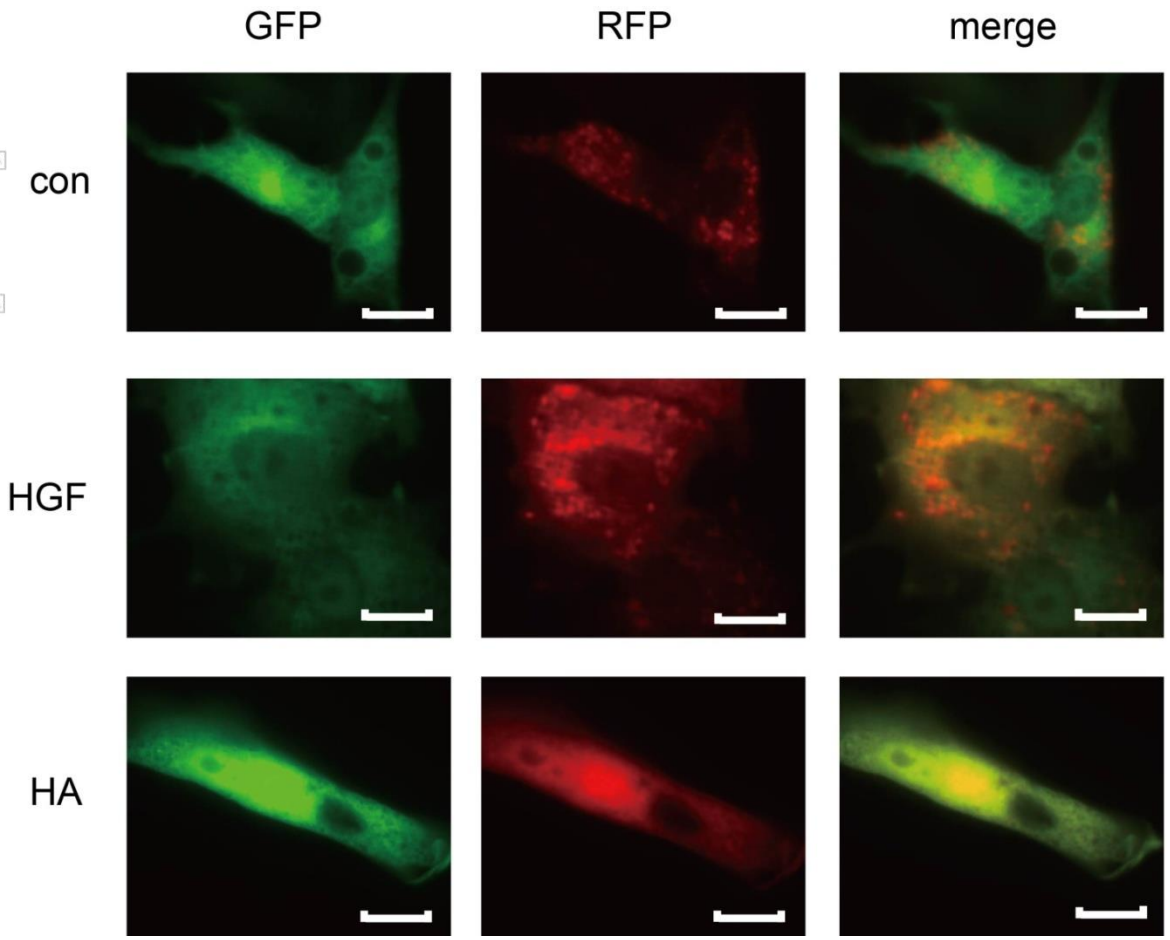
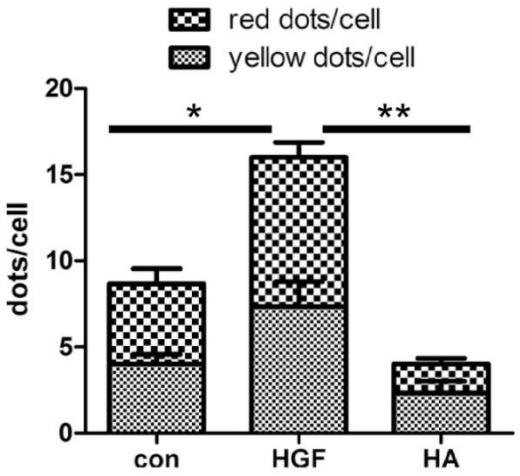
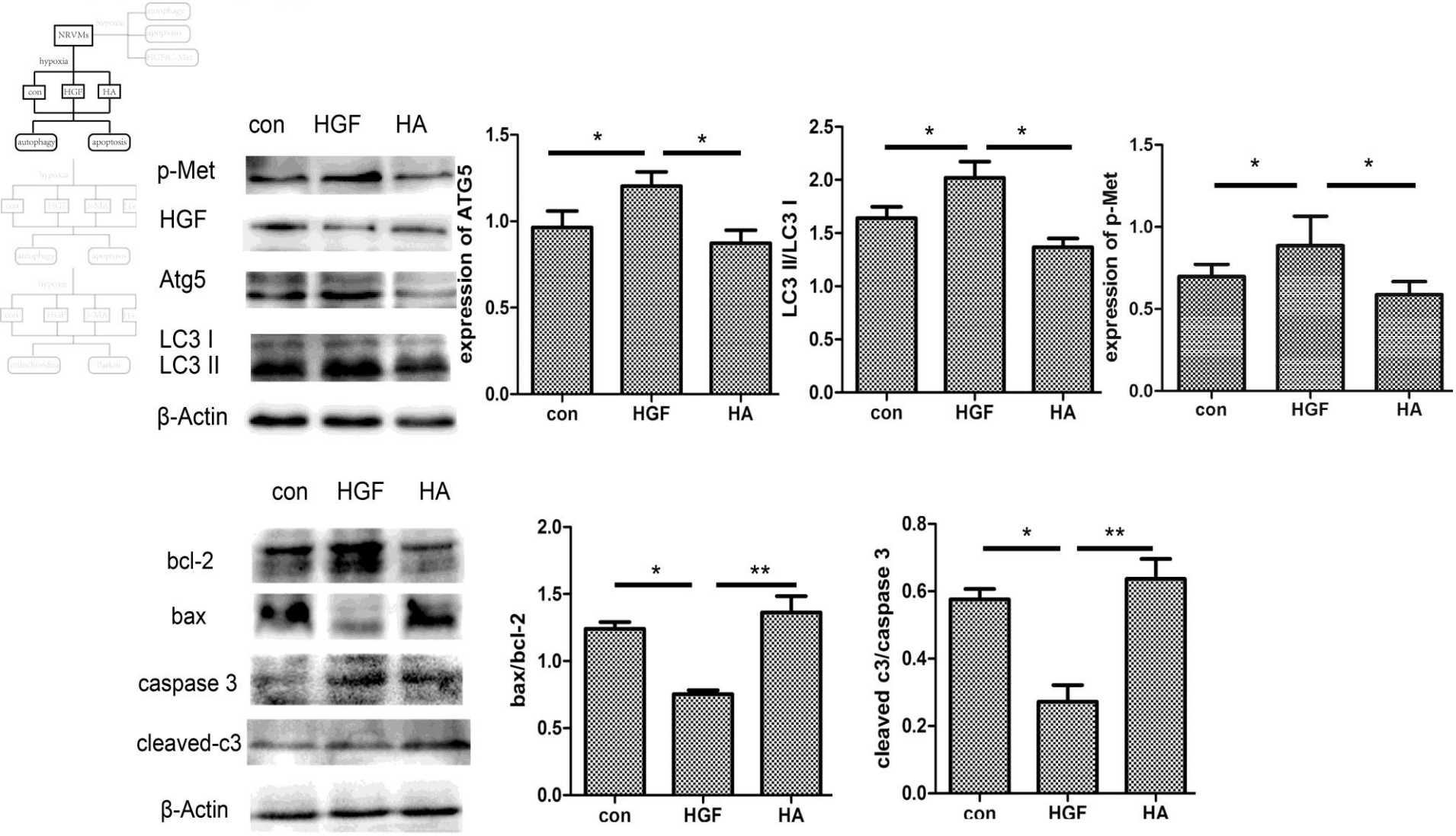




Results of mRFP-GFP-LC3 adenovirus infection in detecting autophagy between group con, HGF, HA

Results



Results of WB in detecting autophagy and apoptosis between groups con, HGF and HA

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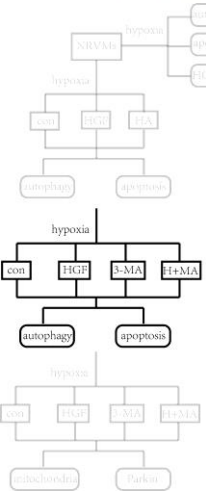
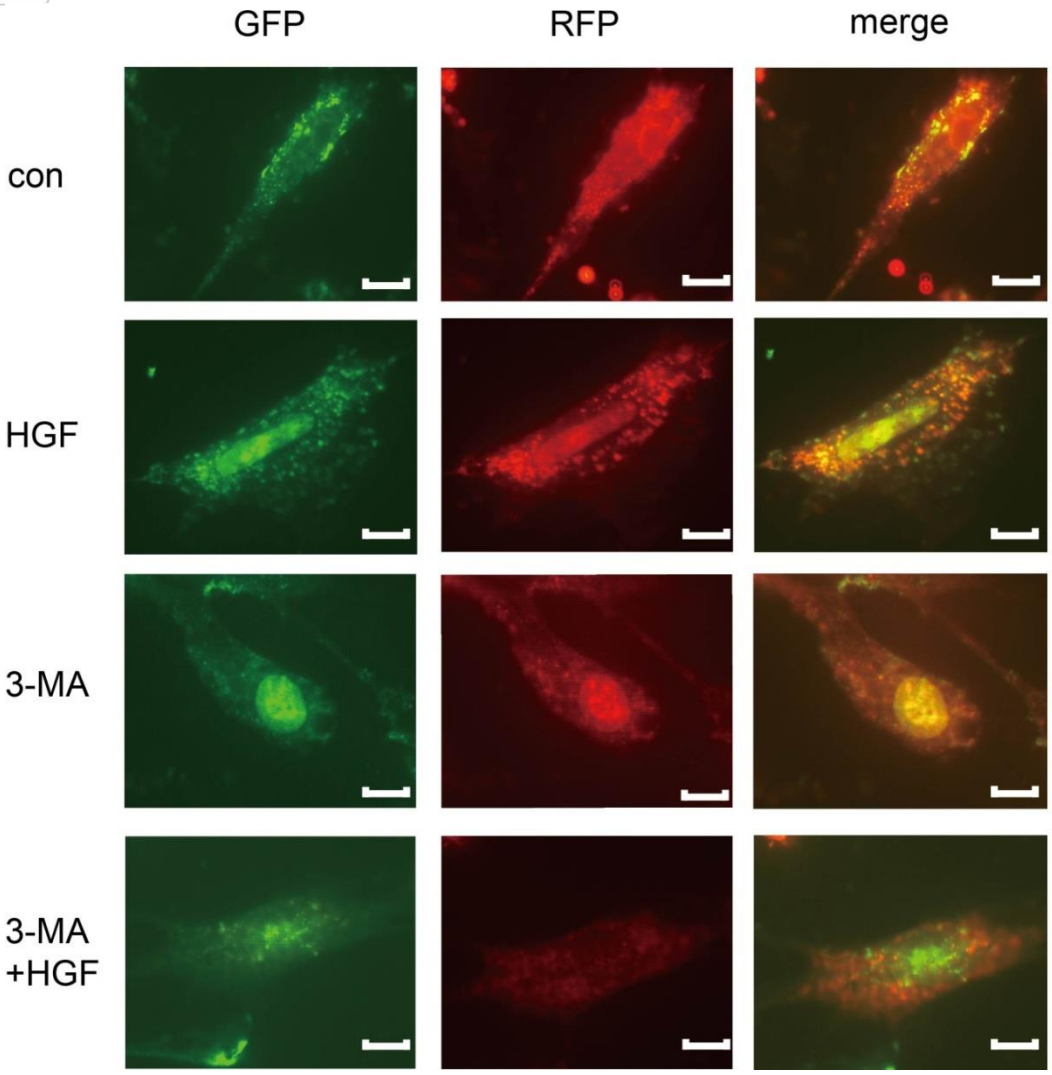
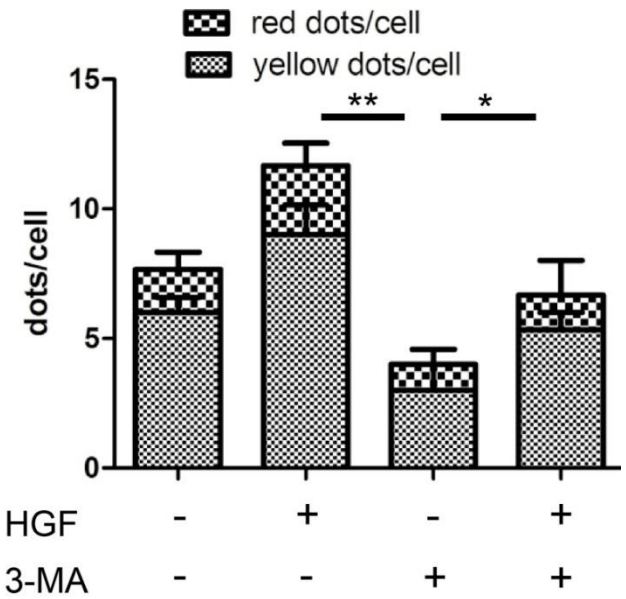
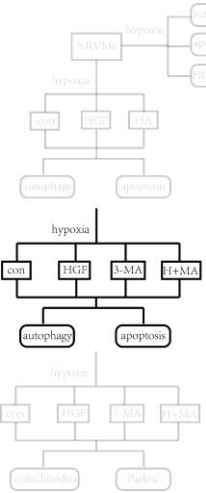


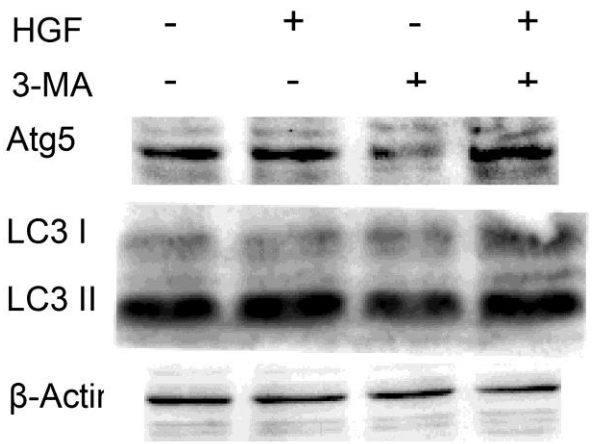


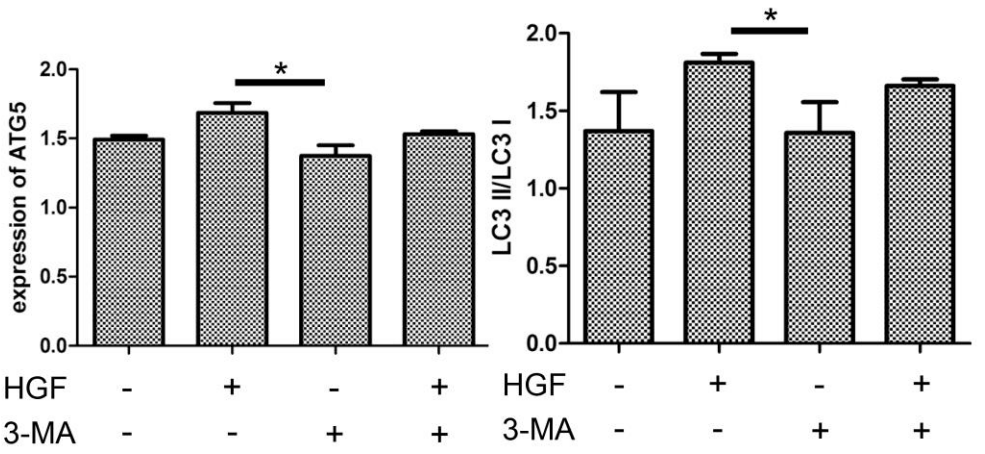


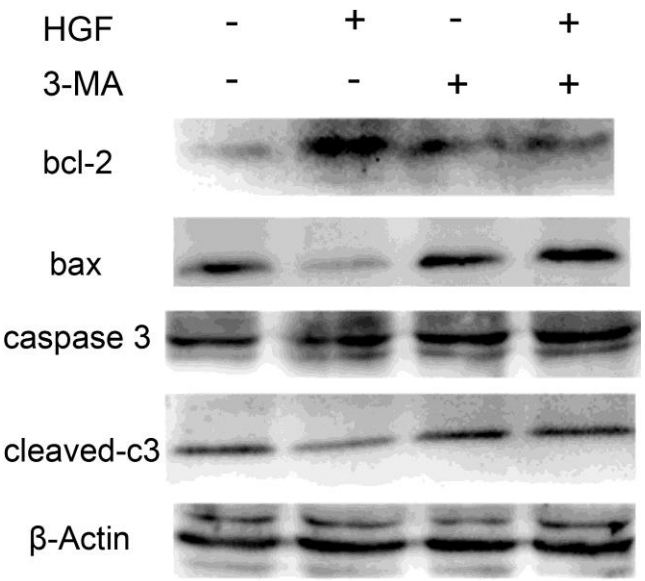
Results of mRFP-GFP-LC3 adenovirus infection in detecting autophagy between group con, HGF, 3-MA and combination.

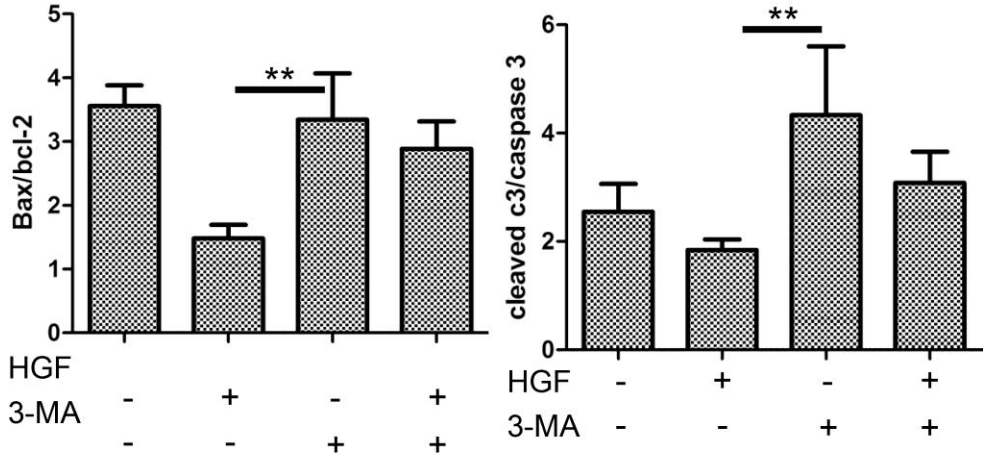
Results





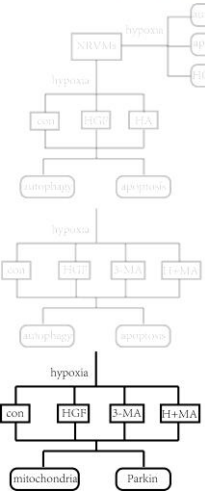


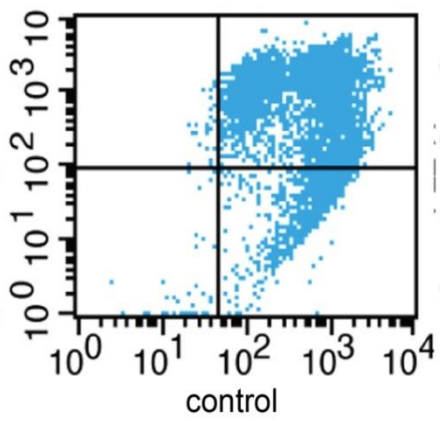


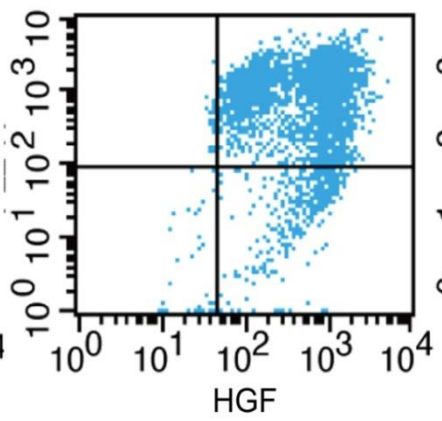


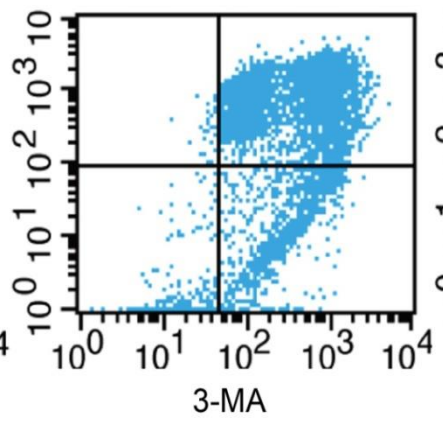
Results of WB in detecting autophagy and apoptosis between groups con, HGF, 3-MA and combination.

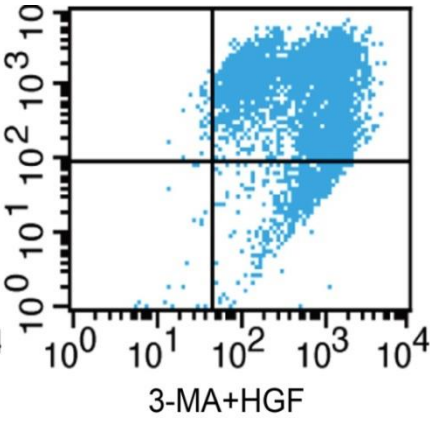
Results

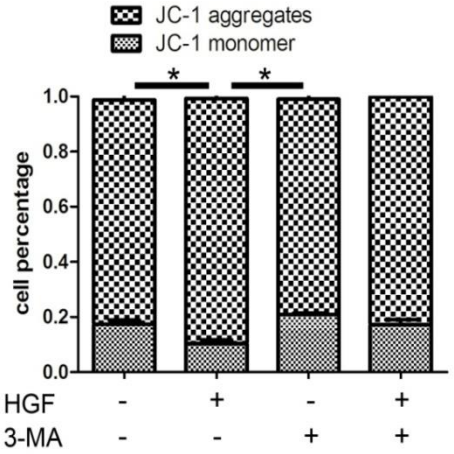


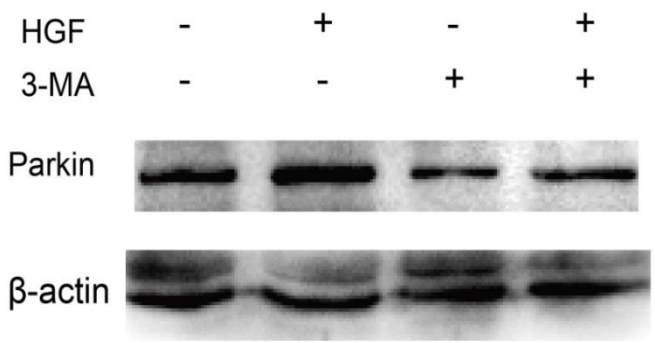


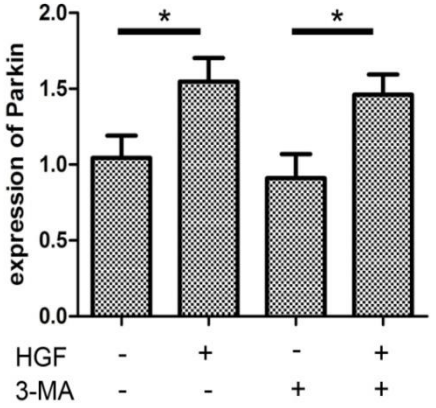






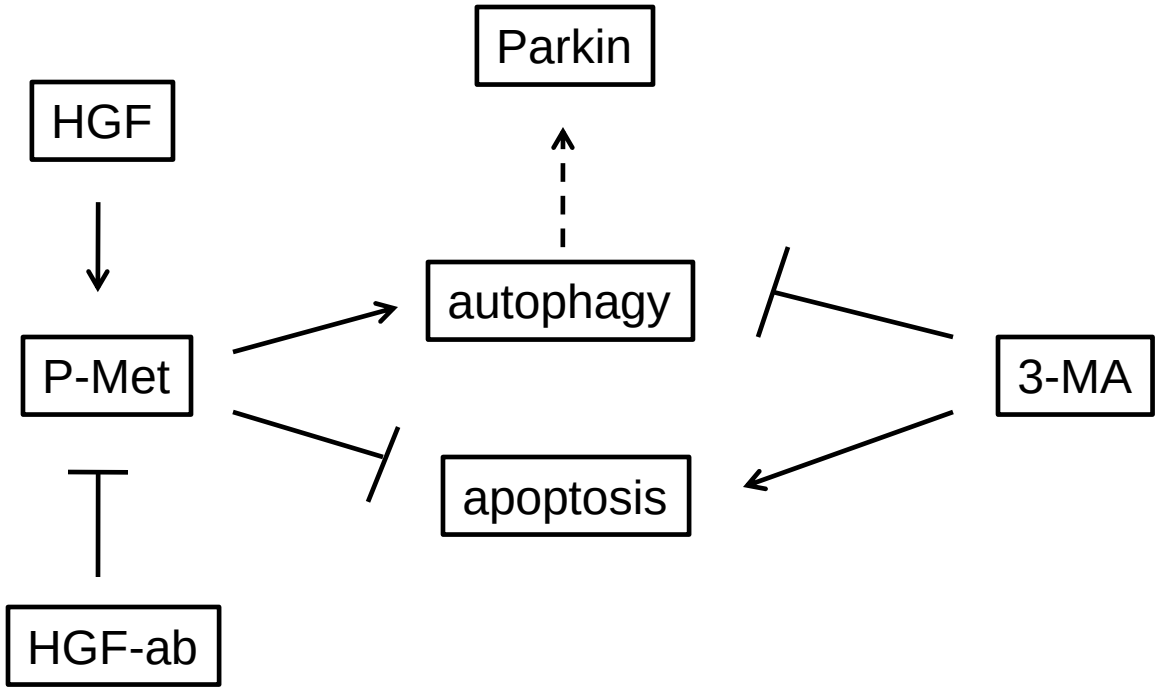






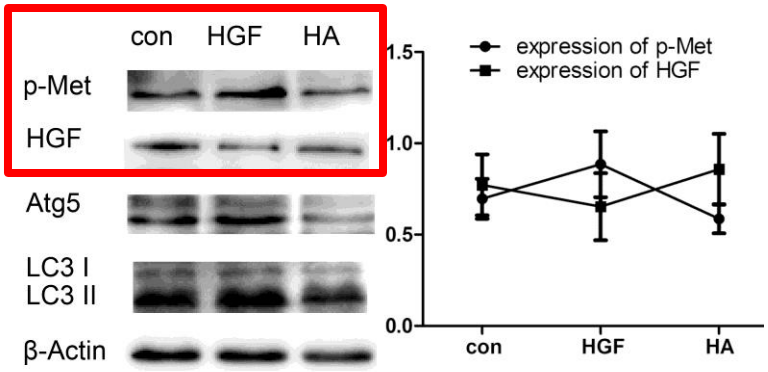
Results of JC1 and WB in detecting mitochondrial function and Parkin expression between groups con, HGF, 3-MA and combination.

Summary



Limitations

- The changes of HGF expression and p-Met were contrary between group control, HGF and HGF-ab.



- The transfer of Parkin from cytoplasm to mitochondrion was more important than the expression of Parkin.

THANK YOU!