读书报告

2018.11.25

RESEARCH ARTICLE

Orexin A affects HepG2 human hepatocellular carcinoma cells glucose metabolism via HIF-1α-dependent and -independent mechanism

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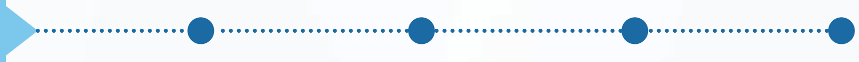
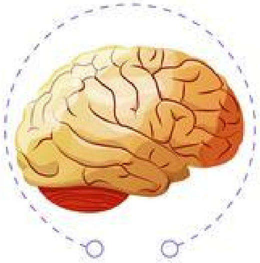
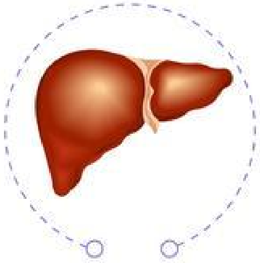
Liaoning, P.R. China. 3 Department of [illegible]gery, First Affiliated Hospital, China Medical University,
Shenyang, Liaoning, P.R. China

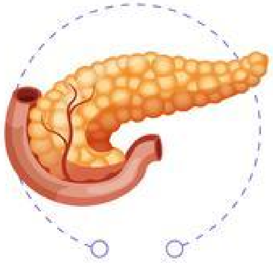




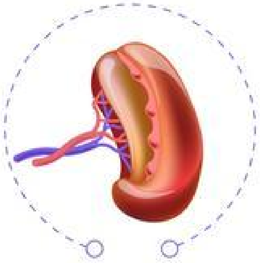
BRAIN



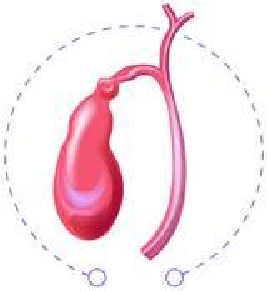
LIVER



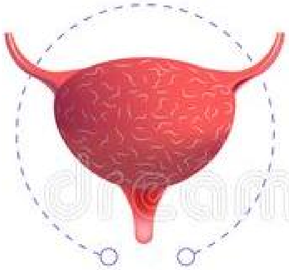
PANCREAS



SPLEEN



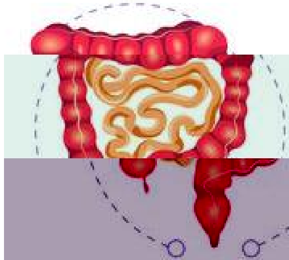
GALLBLADDER



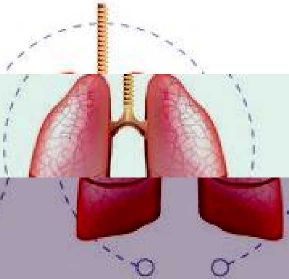
BLADDER

UTERUS

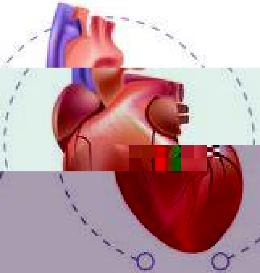
STOMACH



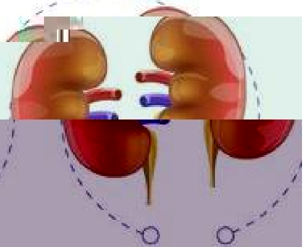
INTESTINES



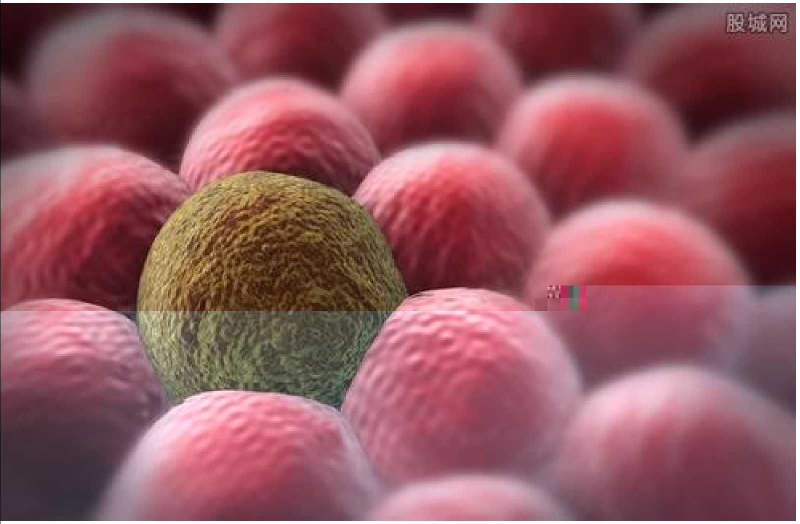
LUNGS



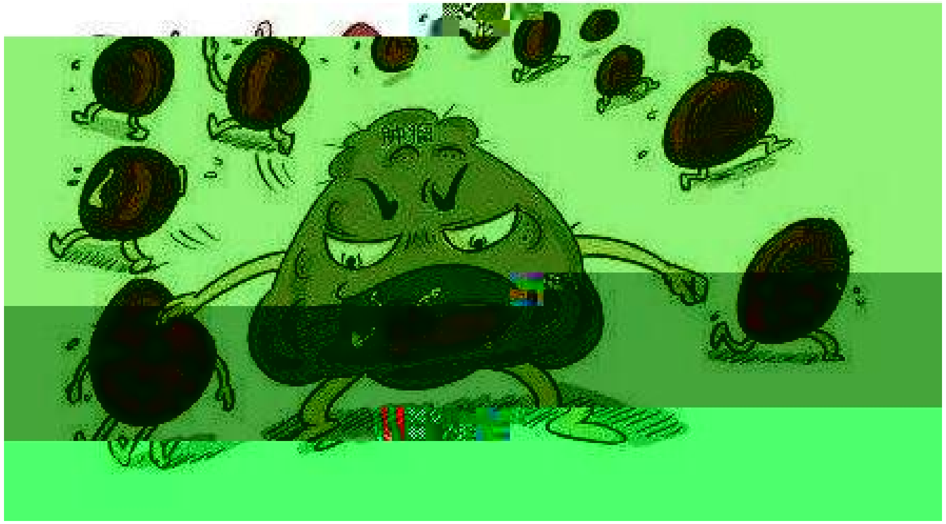
HEART



KIDNEYS



股城网



-1 (HIF-1)

HIF-1 HIF-1α HIF-1β

HIF-1β

HIF-1 HIF-1 (HRG

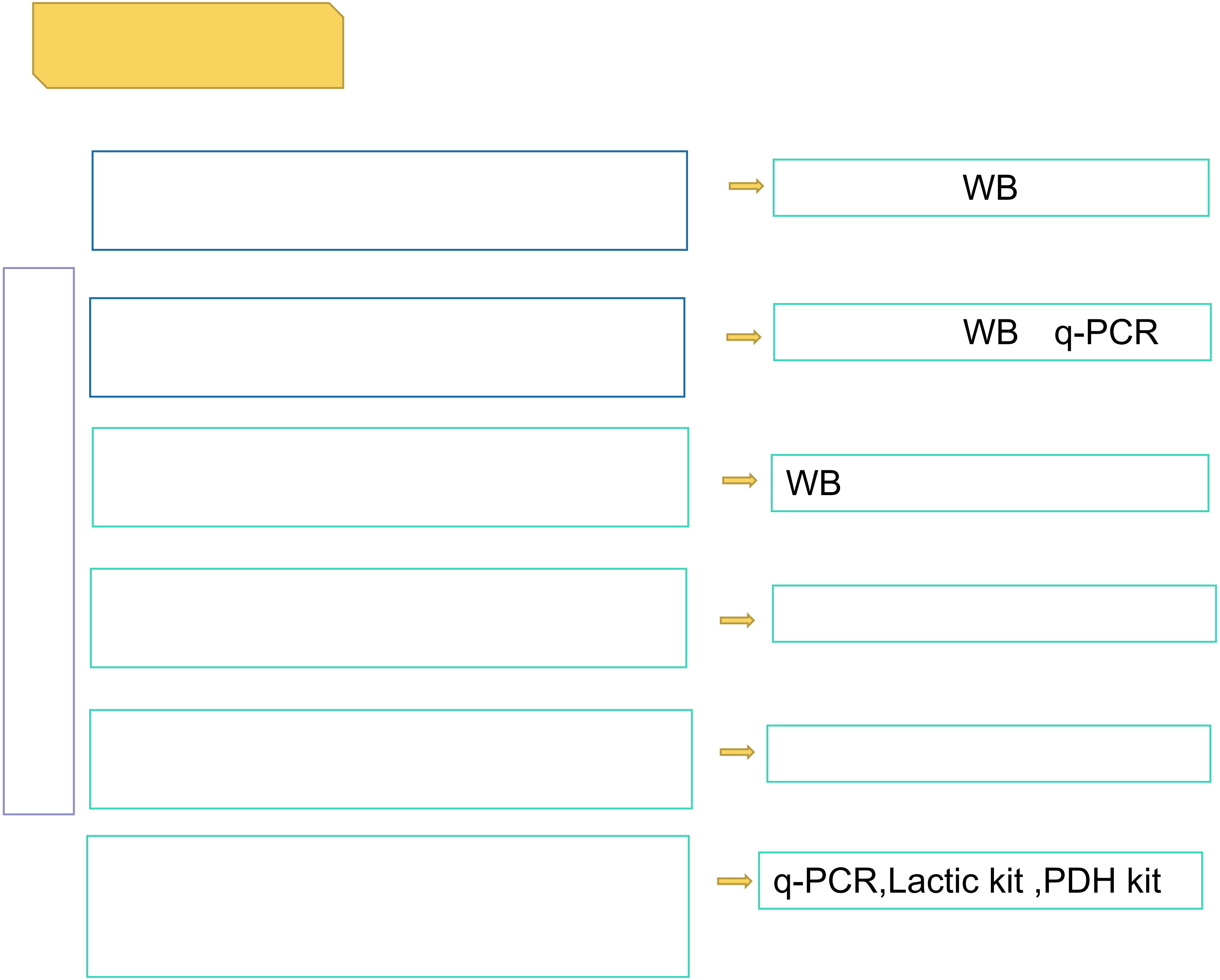
HIF-1 GLUT1

HIF-1

“

”

—目的与意义



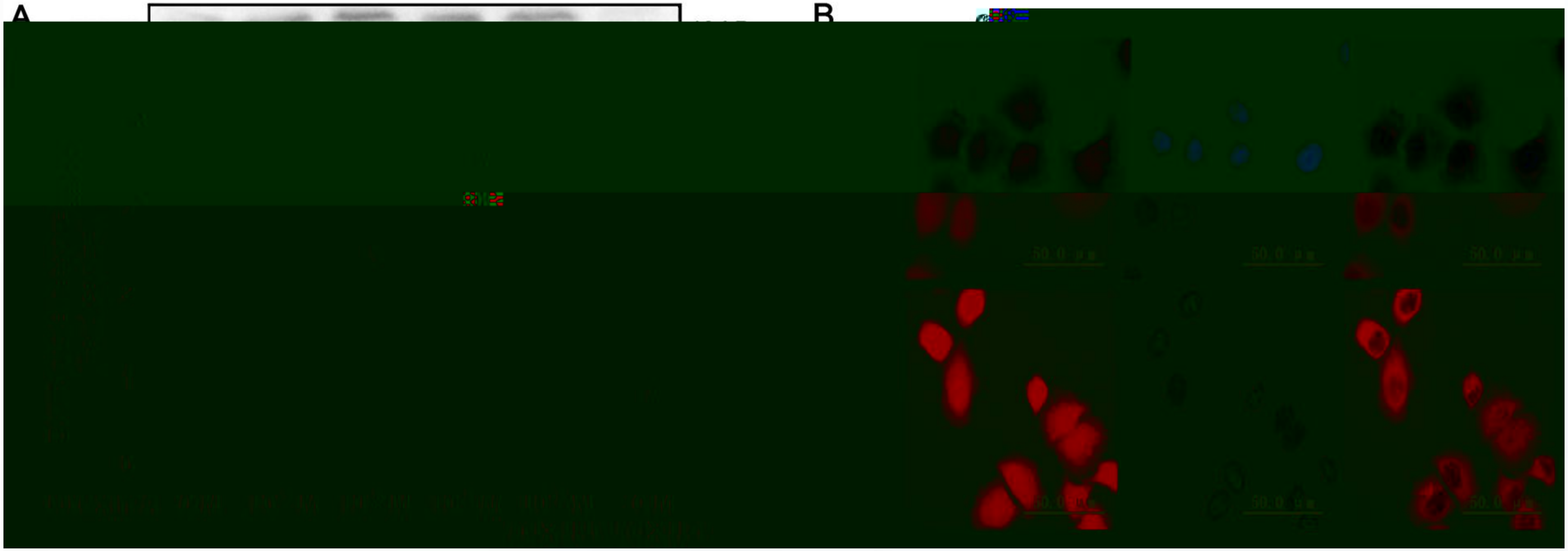
WB

WB q-PCR

WB

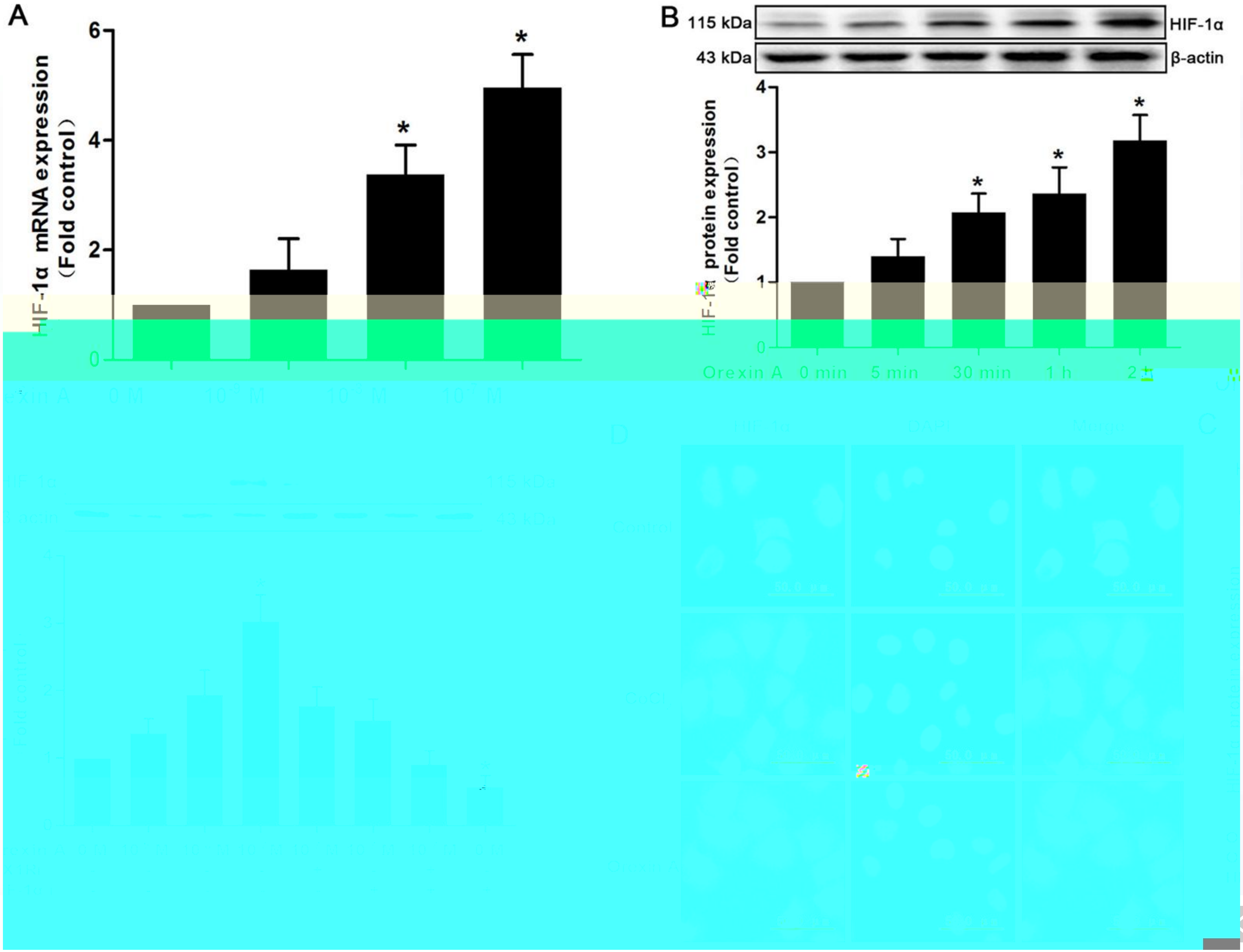
q-PCR,Lactic kit ,PDH kit

1.

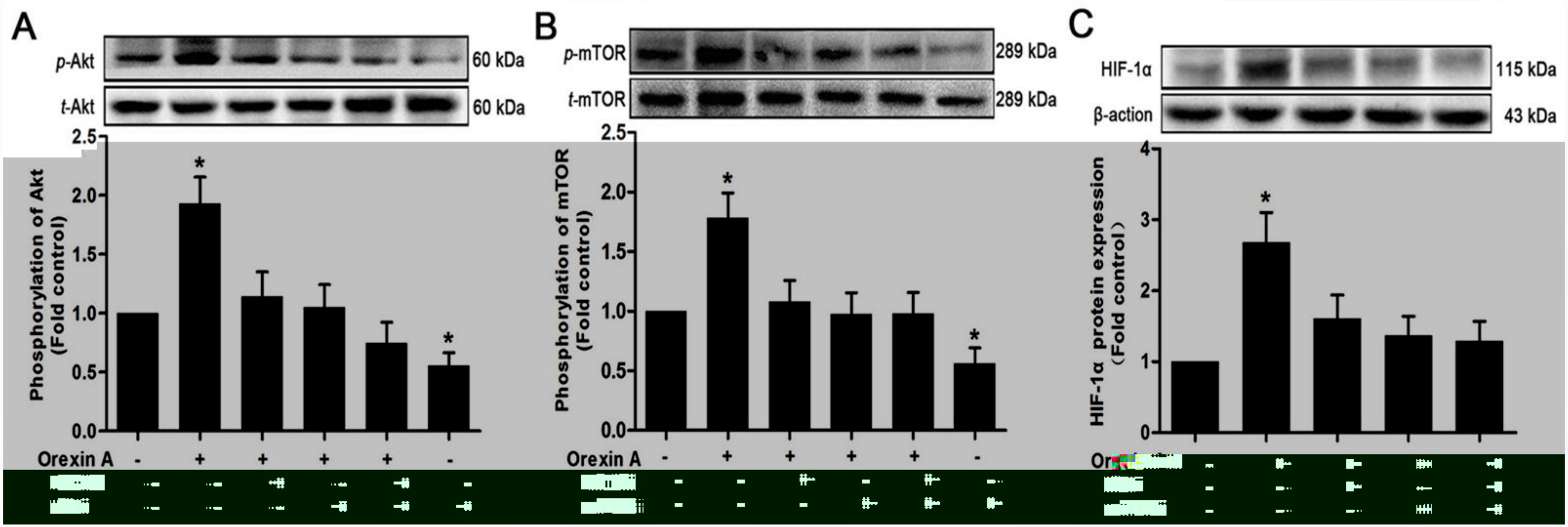


OX1R　HepG2

2.


A
6
4
2
0
HIF-1α mRNA expression (Fold control)
*
*
B
115 kDa
43 kDa
HIF-1α
β-actin
4
3
2
1
0
HIF-1α protein expression (Fold control)
*
*
*
Orexin A
0 min
5 min
30 min
1 h
2 h
D
HIF-1α
DAPI
Merge
Control

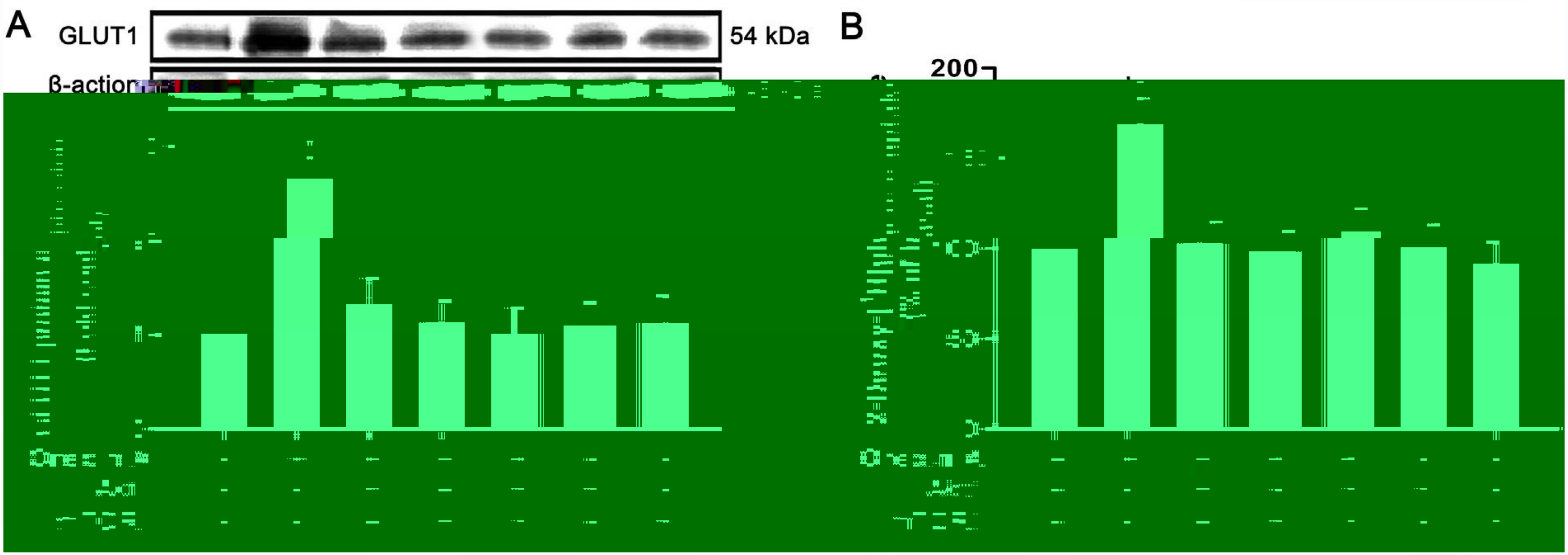
3.



Orexin A   OX1R   Akt   mTOR   Orexin A

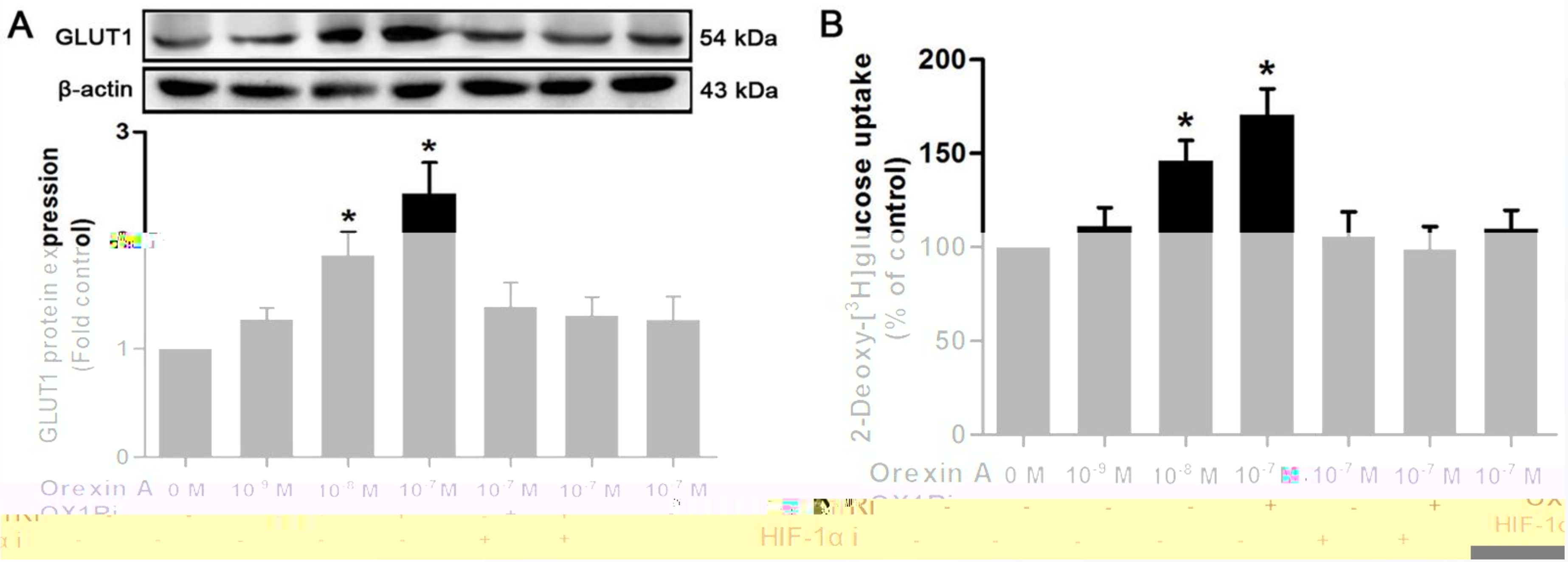
mTOR / PI3K / Akt   HepG2   HIF-1α

4. OxA HepG2 GLUT1



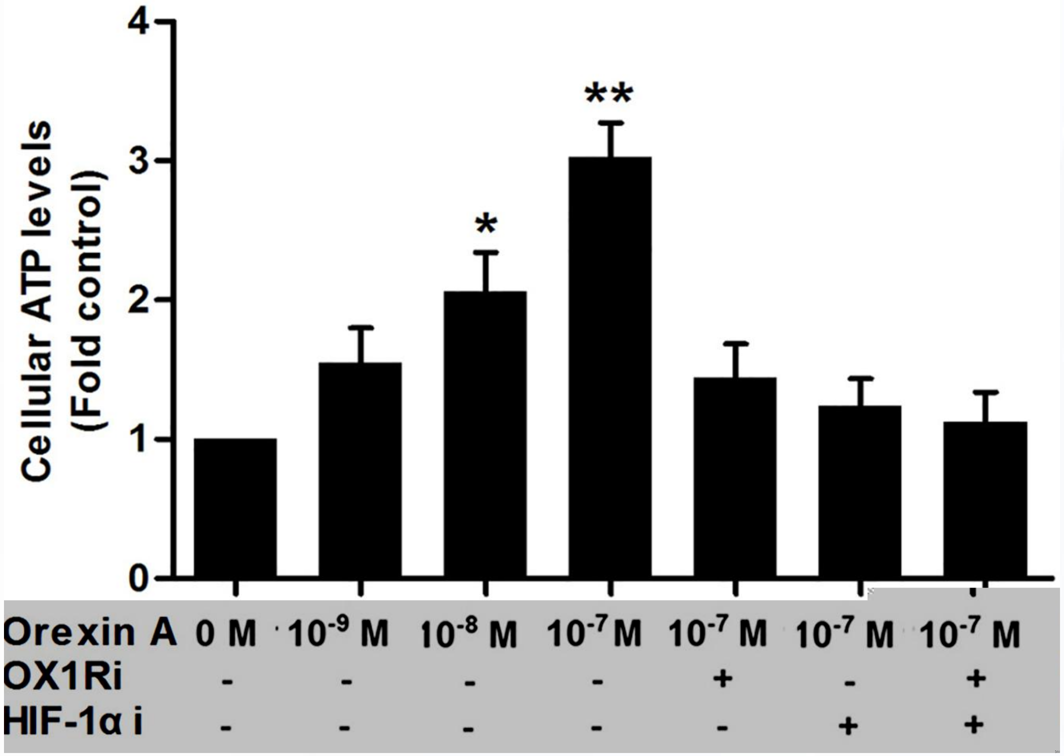
OxA OX1R mTOR / PI3K / Akt GLUT1

4. OxA HepG2 GLUT1



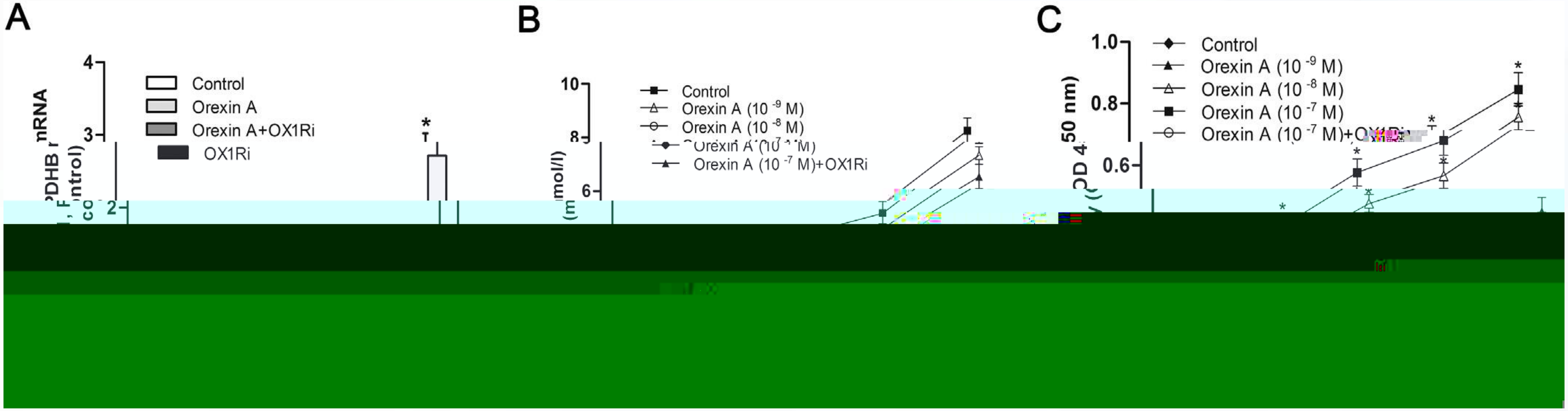
OxA OX1R HIF-1α GLUT1

5. OxA HepG2 ATP



Orexin A	0 M	10^{-9} M	10^{-8} M	10^{-7} M	10^{-7} M	10^{-7} M	10^{-7} M
OX1Ri	-	-	-	-	+	-	+
HIF-1α i	-	-	-	-	-	+	+

6. Orexin A HepG2 TCA

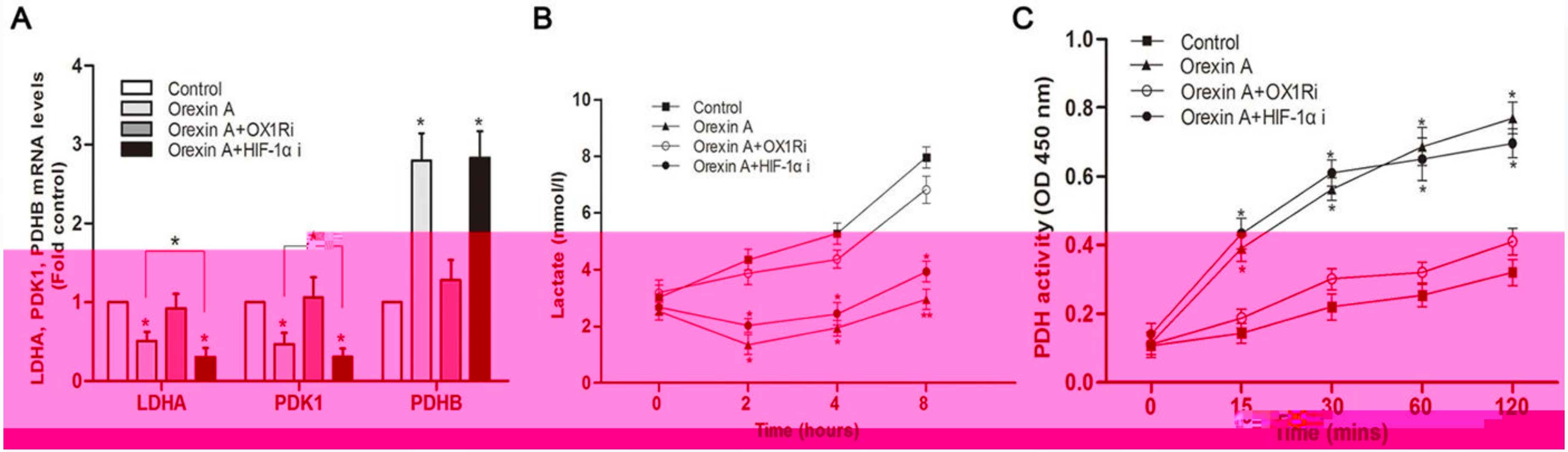


LDHA: ,

PDHB: , CoA

OxA HepG2

6. Orexin A HepG2 TCA



OA

1. OXR

,OxA HIF-1α mRNA

HIF-1α OxA HIF-1α

mTOR / PI3K / Akt

HIF-1α OxA GLUT1 ATP

OxA HIF-1α

A

THANK YOU FOR YOUR WATCHING