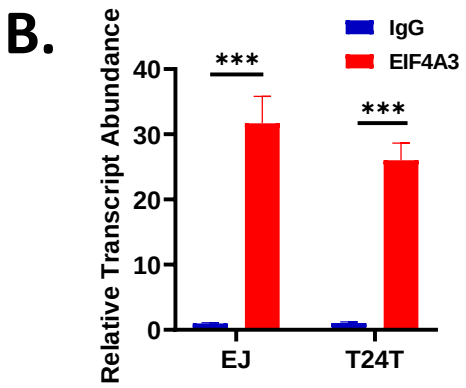
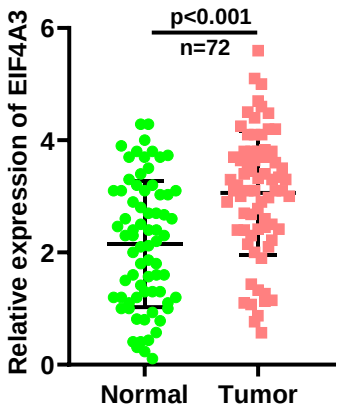
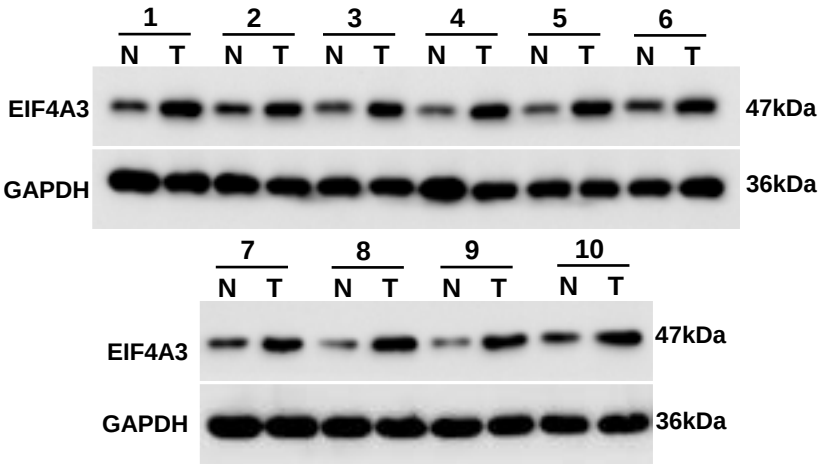
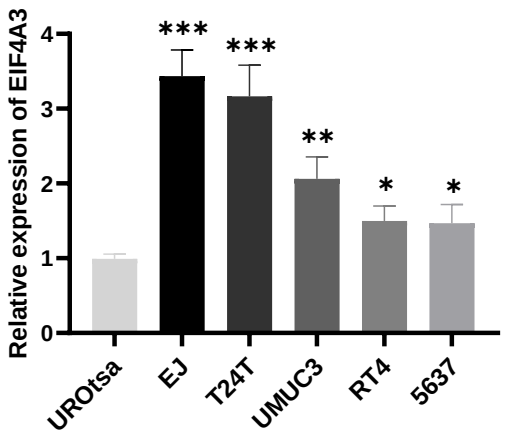
Fig S1.

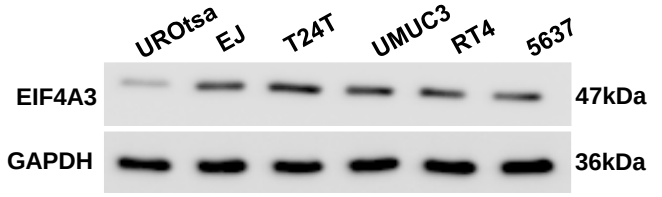

A.
RBM3 pre-mRNA
circ0008399 start
circ0008399 end
EIF4A3
exon1
exon2
exon6
exon7
primer-F
primer-R

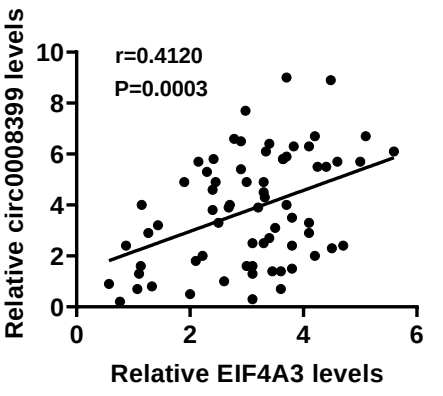

B.
Relative Transcript Abundance
IgG
EIF4A3
***
***
EJ
T24T

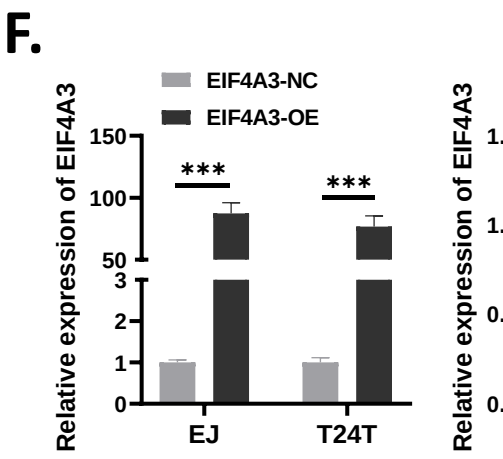

C.
Relative expression of EIF4A3
p<0.001
n=72
Normal
Tumor

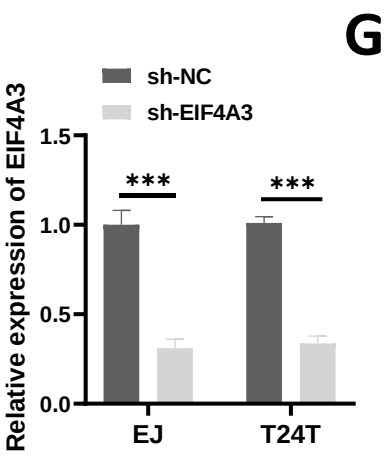

1
2
3
4
5
6
N T
EIF4A3
47kDa
GAPDH
36kDa
7
8
9
10

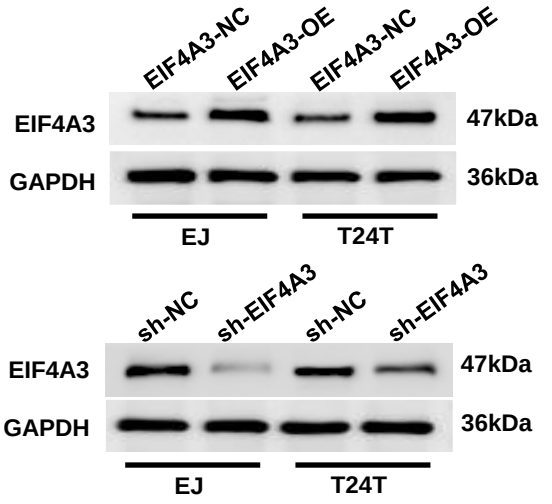

D.
Relative expression of EIF4A3
UROtsa
EJ
T24T
UMUC3
RT4
5637

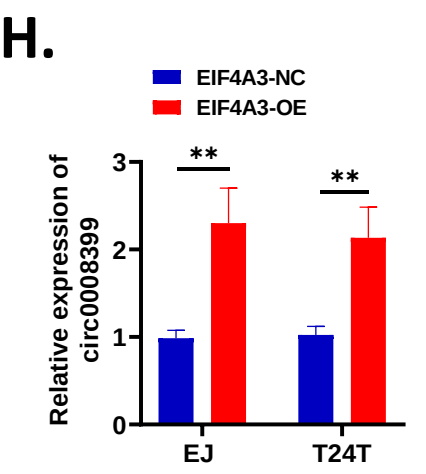

UROtsa
EJ
T24T
UMUC3
RT4
5637
EIF4A3
47kDa
GAPDH
36kDa

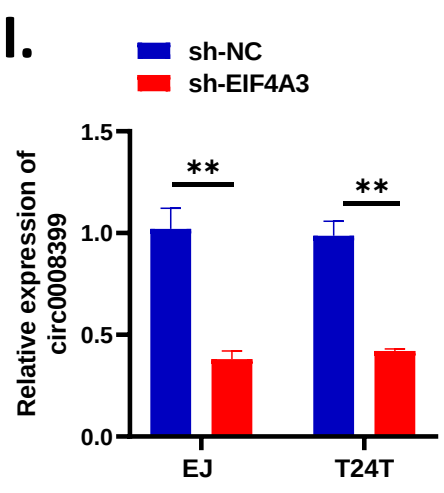

E.
Relative circ0008399 levels
r=0.4120
P=0.0003
Relative EIF4A3 levels

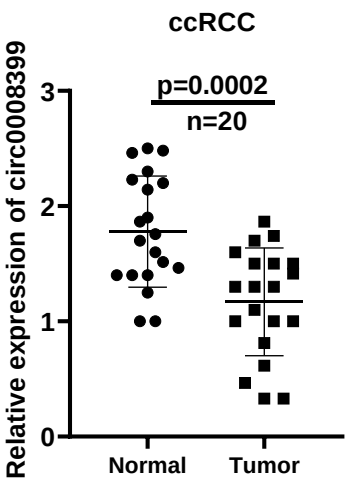

F.
EIF4A3-NC
EIF4A3-OE
Relative expression of EIF4A3
EJ
T24T

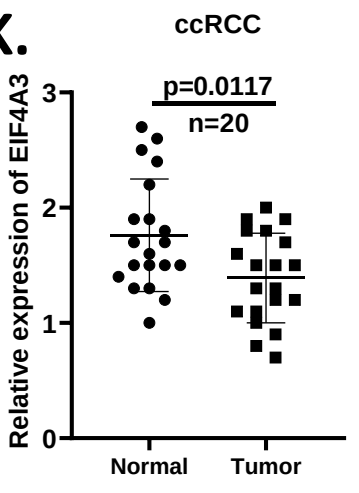

sh-NC
sh-EIF4A3
Relative expression of EIF4A3
EJ
T24T

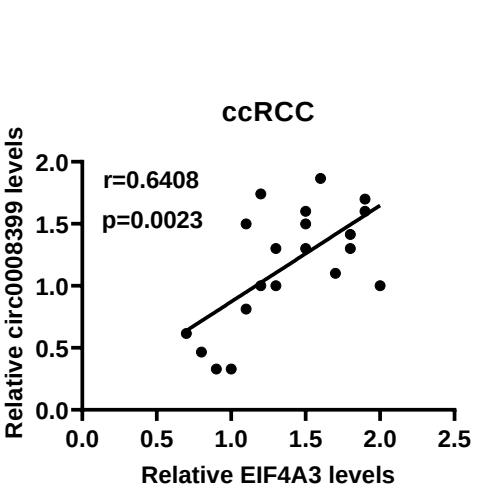

G.
EIF4A3-NC
EIF4A3-OE
EIF4A3-NC
EIF4A3-OE
EIF4A3
47kDa
GAPDH
36kDa
EJ
T24T
sh-NC
sh-EIF4A3
sh-NC
sh-EIF4A3
EIF4A3
47kDa
GAPDH
36kDa
EJ
T24T

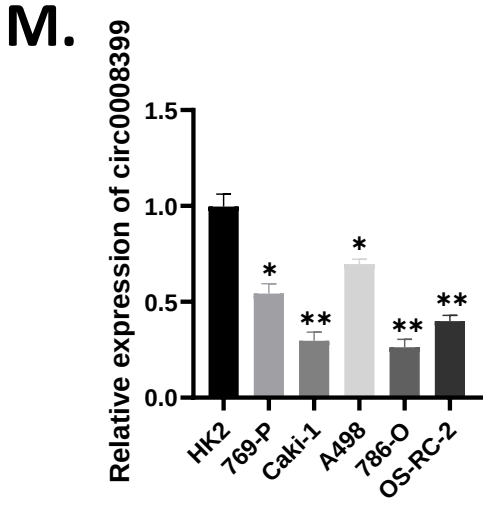

H.
EIF4A3-NC
EIF4A3-OE
Relative expression of circ0008399
EJ
T24T

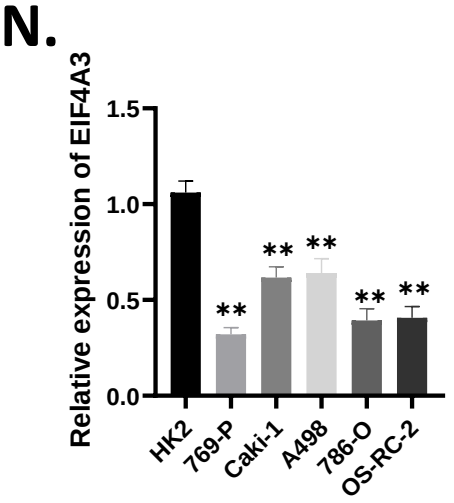

I.
sh-NC
sh-EIF4A3
Relative expression of circ0008399
EJ
T24T

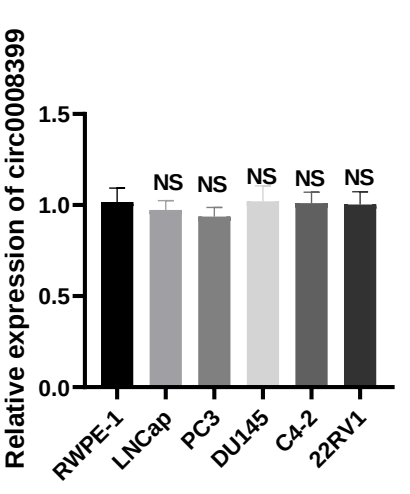

J.
ccRCC
p=0.0002
n=20
Relative expression of circ0008399
Normal
Tumor

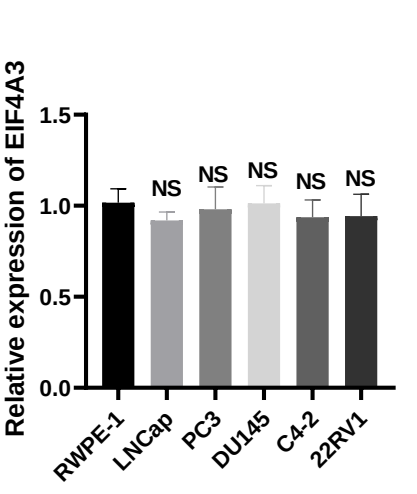

K.
ccRCC
p=0.0117
n=20
Relative expression of EIF4A3
Normal
Tumor


L.
ccRCC
r=0.6408
p=0.0023
Relative circ0008399 levels
Relative EIF4A3 levels


M.
Relative expression of circ0008399
HK2
769-P
Caki-1
A498
786-O
OS-RC-2


N.
Relative expression of EIF4A3
HK2
769-P
Caki-1
A498
786-O
OS-RC-2


O.
Relative expression of circ0008399
NS
RWPE-1
LNCap
PC3
DU145
C4-2
22RV1


P.
Relative expression of EIF4A3
NS
RWPE-1
LNCap
PC3
DU145
C4-2
22RV1

Supplementary Fig.1 EIF4A3 promotes the biogenesis of circ0008399 in BC.

(A) The putative binding sites of EIF4A3 in the upstream and downstream region of the RBM3 pre-mRNA were predicted with CircInteractome database, and designed primers for detecting pre-mRNA of RBM3.

(B) RIP assay confirmed that EIF4A3 could directly bind to the RBM3 pre-mRNA in BC cells. IgG were used as the negative controls.

(**C)** The relative expression of EIF4A3 in BC tissues were detected by qRT-PCR and western blot.

(D) The relative expression of EIF4A3 in BC cells were detected by qRT-PCR and western blot.

(E) The correlation between the expression of EIF4A3 and circ0008399 in BC tissues. The relative expression of EIF4A3 and circ0008399 was calculated by △Ct value.

(F-G) The overexpression and knockdown efficiencies of EIF4A3 in BC cells were detected by qRT-PCR **(F)** and western blot **(G).**

(H-I) Circ0008399 expression was detected in BC cells after EIF4A3 up-regulation **(H)** or down-regulation **(I)** by qRT-PCR.

(J-K) The relative expression of circ0008399 **(J)** and EIF4A3 **(K)** in ccRCC tissues were detected by qRT-PCR.

(L) The correlation between EIF4A3 and circ0008399 in ccRCC samples. The relative expression of EIF4A3 and circ0008399 was calculated by △Ct value.

(M-N) The relative expression of circ0008399 **(M)** and EIF4A3 **(N)** in ccRCC cells were detected by qRT-PCR**.**

(O-P) The relative expression of circ0008399 **(O)** and EIF4A3 **(P)** in prostate cancer cells were detected by qRT-PCR.

Data are presented as the means ± SD from three independent experiments. *P < 0.05; **P < 0.01; ***P < 0.001 (Student’s t test)