

The supplementary materials consist of 3 supplementary tables and 4 supplementary figures.

Supplementary Tables

Supplementary Table 1. Expression and scoring of HIF2A in NSCLC tissues.

Intensity Positive Cell (%)	Weak Staining = 1 point	Medium Staining = 2 points	Strong Staining = 3 points
<10% = 1 point	IRS = 1	IRS = 2	IRS = 3
10%-<50% = 2 points	IRS = 2	IRS = 4	IRS = 6
50%-<80% = 3 points	IRS = 3	IRS = 6	IRS = 9
≥ 80% = 4 points	IRS = 4	IRS = 8	IRS = 12

Supplementary Table 2. Primers for shRNA construction

shRNA	Forward	Reverse	Target Seq
shFOXP3	5'- CCGGCTGAGTCTGCACAAGTGCT TTCTCGAGAAAGCACTTGTGCAG ACTCAGTTTTTG-3'	5'- AATTCAAAAAGTCTGAGTCTGCAC AAGTGCTTTCTCGAGAAAGCAC TTGTGCAGACTCAG-3'	5'- CTGAGTCTGCACA AGTGCTTT-3'
shHIF2A	5'- CCGGGCGCAAATGTACCCAATGA TACTCGAGTATCATTGGGTACATT TGCCTTTTTG-3'	5'- AATTCAAAAAGCGCAAATGTAC CCAATGATACTCGAGTATCATT GGGTACATTTGCGC-3'	5'- GCGCAAATGTAC CCAATGATA-3'

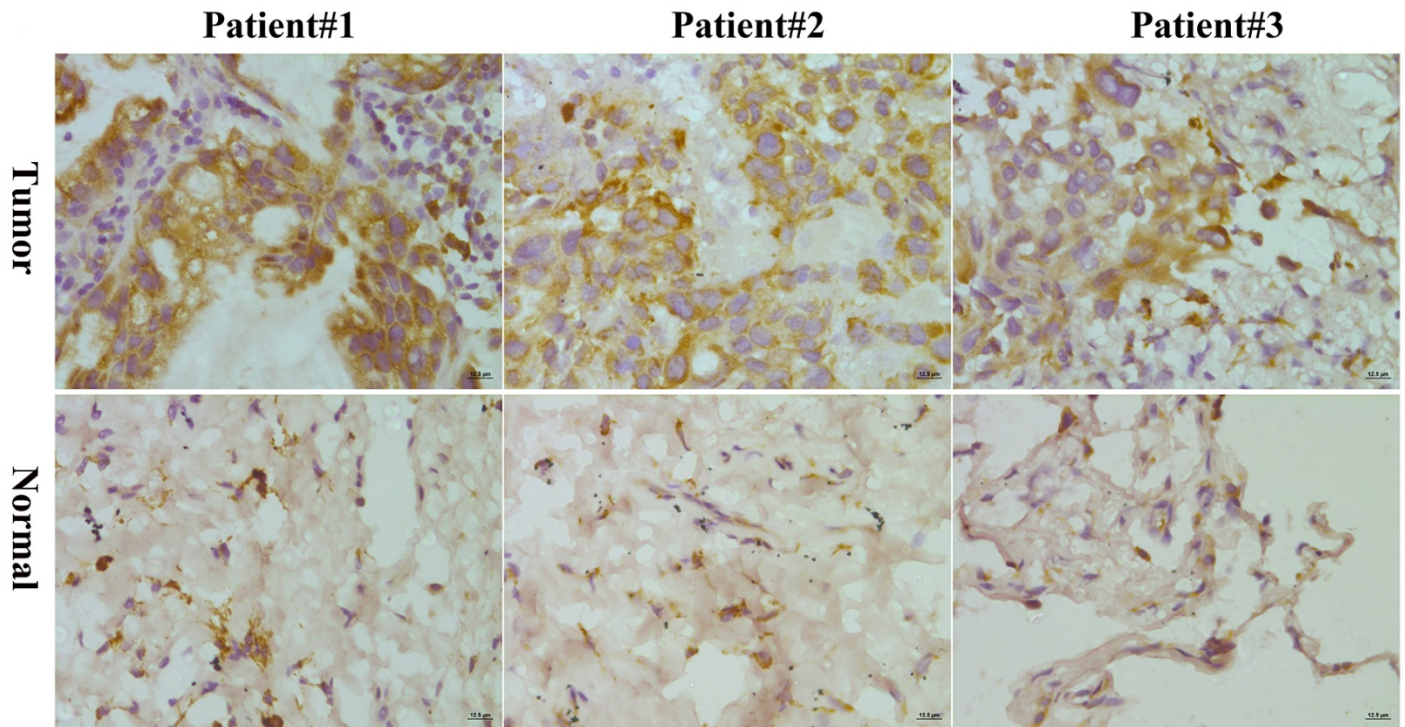
Supplementary Table 3. Primers for real-time PCR.

Item	Forward	Reverse
EGFR-AS1	5'-AGGACTGACTGCCACTGCTAACC-3'	5'-GAATACGCCGTTGCCCCGTCATCT-3'
HIF2A	5'-GCTTCCTGCGAACACACAAG-3'	5'-GGTCACCACGGCAATGAAAC-3'
FOXP3	5'-CCTACCCACTGCTGGCAAAT-3'	5'-CCTGGCAGTGCTTGAGGAA-3'
GAPDH	5'-GCACCACCAACTGCTTAGCA-3'	5'-TCTTCTGGGTGGCAGTGATG-3'
HIF2A_CHIP-PCR	5'-AAAGCTTGCGGATTTCAGAGCCAG-3'	5'-AAGTGATCATGTTCAATCCTCACG3'

Supplementary Figures

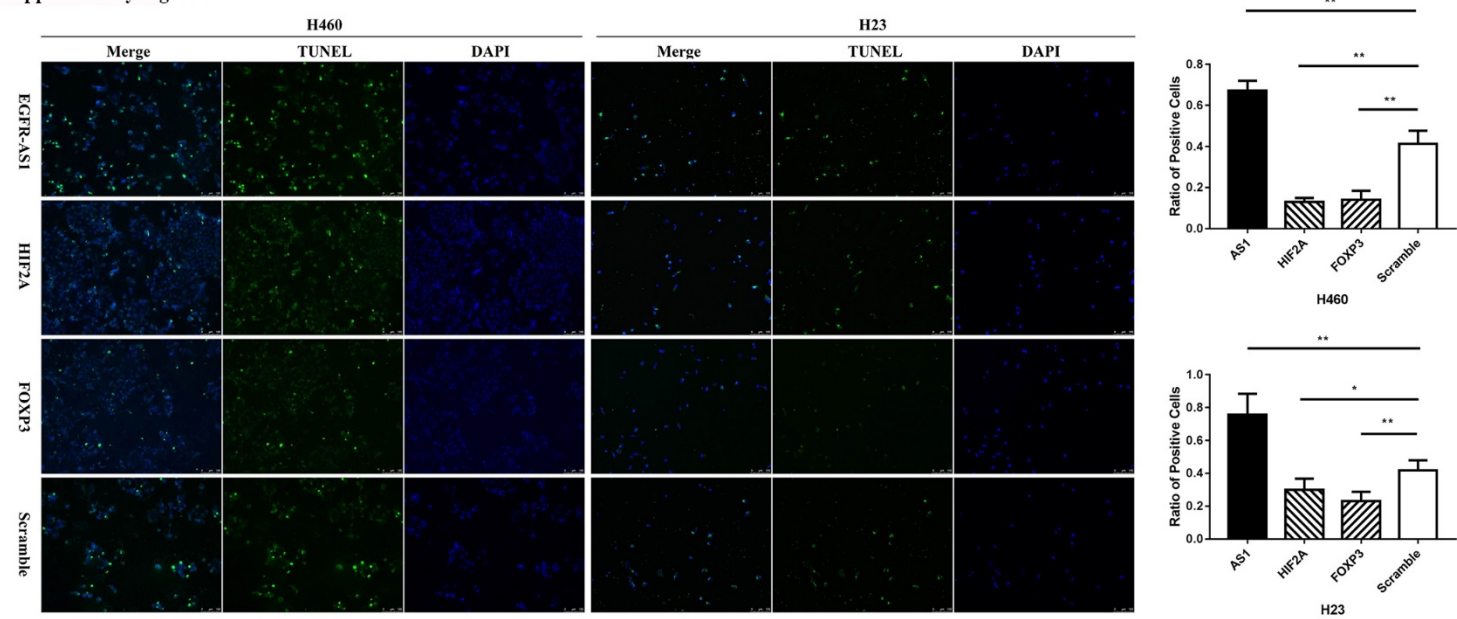
Supplementary Figure 1. The expression of HIF2A in NSCLC patients. The expression of HIF2A in paired patient tissues was evaluated by IHC. The experiments were performed in triplicate at least.

Supplementary Figure 1



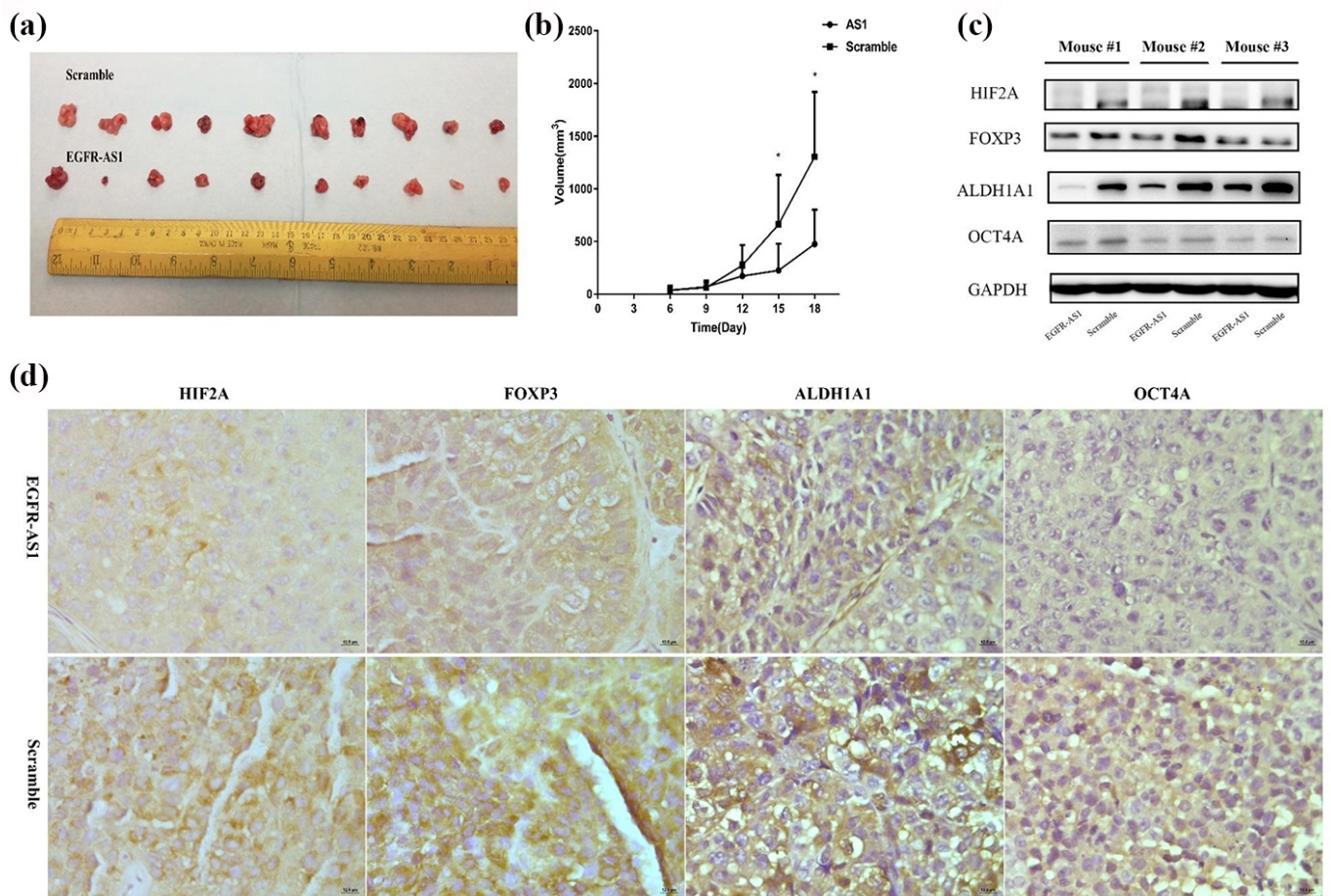
Supplementary Figure 2. TUNEL analysis for transfected cell lines. TUNEL analysis was conducted to evaluate the apoptosis of the cell lines with EGFR-AS1, HIF2A, FOXP3 or scramble respectively (**P<0.01, *P<0.05). The experiments were performed in triplicate at least. The experiments were performed in triplicate at least.

Supplementary Figure 2



Supplementary Figure 3. The influence of EGFR-AS1 upon FOXP3 expression and NSCLC cells stemness in vivo. (a) H460 cells stably transfected with scramble or EGFR-AS1 were respectively injected subcutaneously into nude mice. (b) The volumes of the tumours were measured every 3 days (* $p < 0.05$). (c) WB analysis was conducted to evaluate the expression of HIF2A, FOXP3 and two CSC markers. (d) IHC analysis was conducted to evaluate the expression of HIF2A, FOXP3 and two CSC markers. The experiments were performed in triplicate at least.

Supplementary Figure 3



Supplementary Figure 4. The influence of HIF2A upon FOXP3 expression and NSCLC cells stemness in vivo. (a) H460 cells stably transfected with scramble or HIF2A were respectively injected subcutaneously into nude mice. (b) The volumes of the tumours were measured every 3 days (* $p < 0.05$). (c) WB analysis was conducted to evaluate the expression of HIF2A, FOXP3 and two CSC markers. (d) IHC analysis was conducted to evaluate the expression of HIF2A, FOXP3 and two CSC markers. The experiments were performed in triplicate at least.

Supplementary Figure 4

