

## Supplemental Experimental Procedures:

### Primer sequences used for qRT-PCR:

PSA:            5'-GCCCTGCCCGAAAGG  
                  3'-GATCCACTTCCGGTAATGCA

NKX3.1:        5'-CCGAGACGCTGGCAGAGACC  
                  3'-GCTTAGGGGTTTGGGAAG

AR:            5'-CCTGGCTTCCGCAACTTACAC  
                  3'-GGACTTGTGCATGCGGTACTCA

Lin28B:        5'-AGCCCCTTGGATATTCCAGTC  
                  3'-AATGTGAATTCCACTGGTTCTCCT

c-Myc: 5'-TGAGGAGACACCGCCCAC  
                  3'-CAACATCGATTTCTTCCTCAT C

### Primers used for ChIP assays:

PSA promoter-AR binding site:

ARE-III-5' -CATGTTACATTAGTACACCTTGCC  
ARE-III-3' -TCTCAGATCCAGGCTTGCTTACTGTC

NKX3.1 promoter-AR binding site:

ARE-I-5' -TTGCATAAATTAGGGGAGAACATACCA  
ARE-I-3' -GAGGGACCCAGCTGCGATTCA

AR promoter-Myc binding site:

5'-GAGGGTTCCTAGAGCAAATGG  
3'-CAGATGGGAGAGTGGGAGAG

### Supplemental Figure Legends

**Figure 1. A & B** ) Expression levels of let-7c in LNCaP and LN-IL6+ cells transfected with let-7c anti-sense oligos and let-7c plasmids respectively. **C**) Expression of let-7c in C4-2B cells stably expressing let-7c.

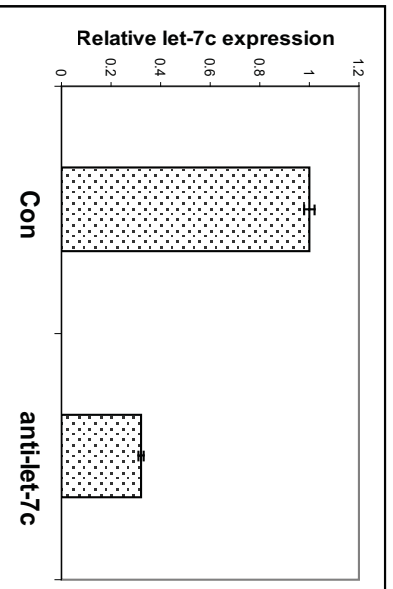
**Figure 2. A & B)** Protein levels of Myc and AR were analyzed by Western blotting in LNCaP and C4-2B cells stably expressing let-7c. Levels of both AR and Myc were lower in the presence of let-7c.

**Figure 3.** LNCaP (**A**) and C4-2B (**B**) cells stably expressing GFP or let-7c were transfected with Myc and pGL4-AR-prom-Luc reporter. AR promoter activity was reduced in cells expressing let-7c while overexpression of Myc could overcome the decrease in AR promoter activity induced by let-7c.

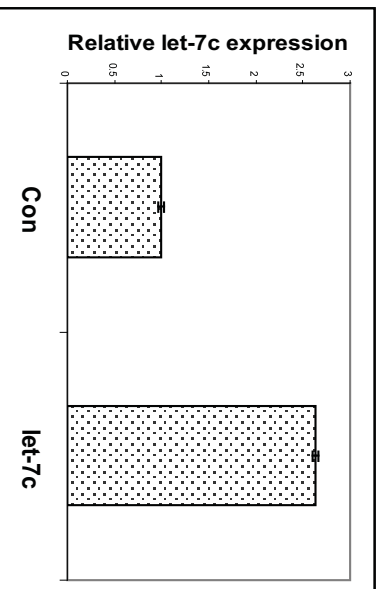
**Figure 4. A)** Schematic diagram shows the conserved binding sites for let-7c in the 3'-UTR of Myc. **B)** Table shows the conservation of let-7c binding sites in the 3'-UTR of Myc among several vertebrates and the predicted free energies of the resulting hybrids.

**Figure S1**

**A**



**B**



**C**

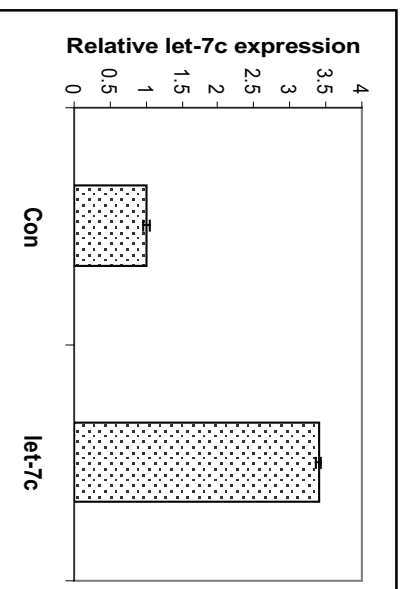
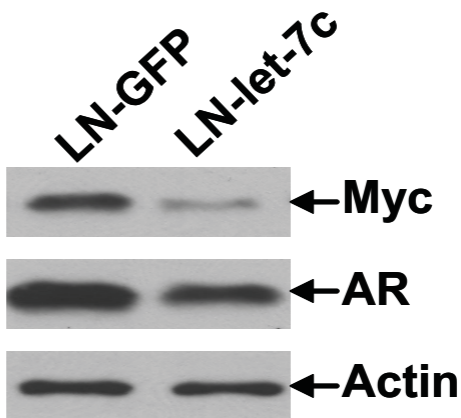


Figure S2

A



B

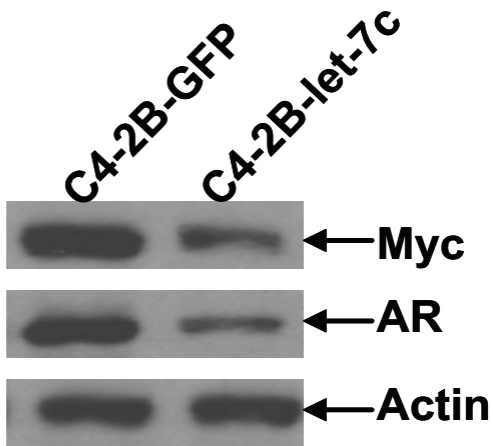
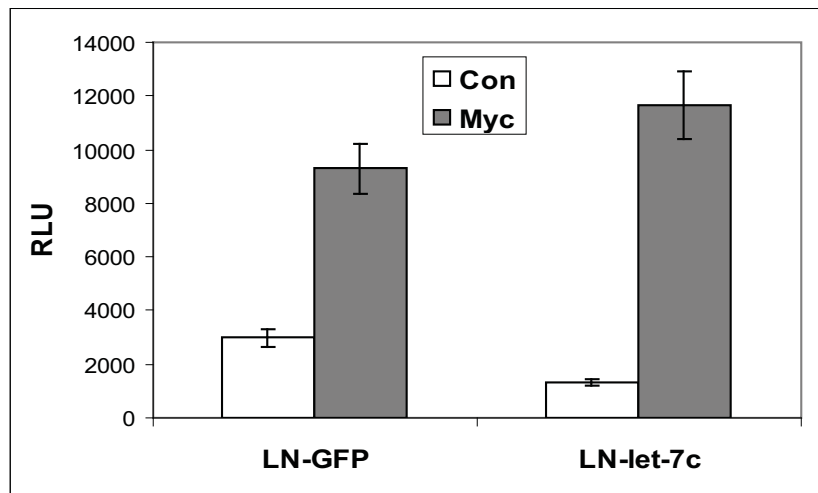
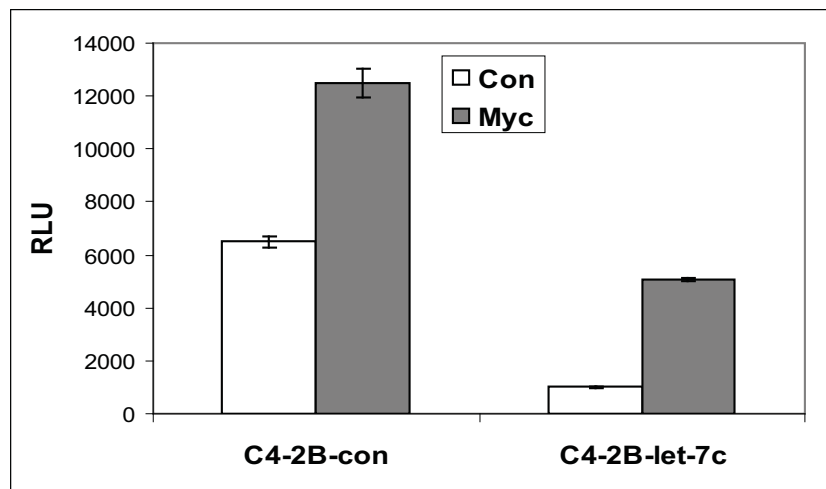


Figure S3

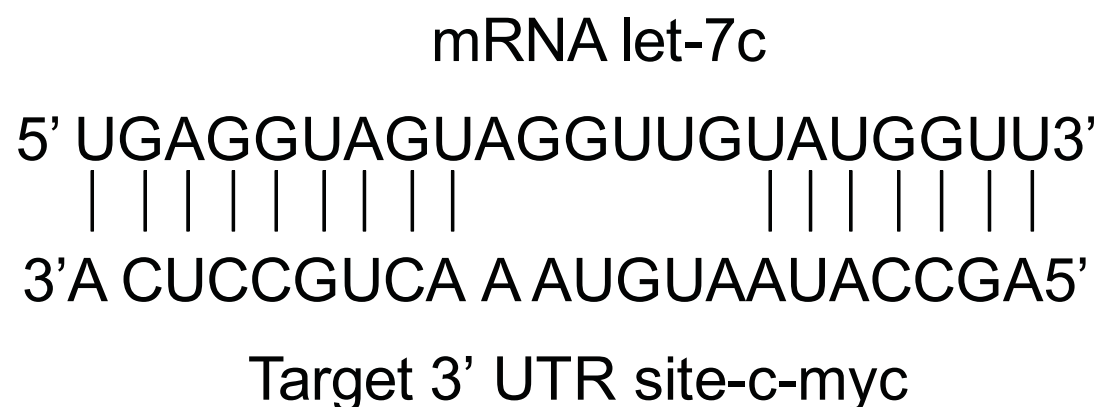
A



B



A



B

Org	PicTar score	PicTar score per species	microRNA	Probabilities	Nuclei mapped to sequence	Free Energies kcal/mol	Structure of predicted duplex
hs	7.13	6.98	<a href="#">hsa-let-7c</a>	0.97 0.97	506 870	-20.9 -21.5	<u>UCAUAC ACU</u> <u>UACCUCA</u> : <u>GGUAUG</u> <u>UGG</u> <u>AUGGAGU</u> <u>AUC UAUAGC CU</u> <u>UACCUCA</u> : <u>UGG AUGUUG GA</u> <u>AUGGAGU</u>
pt	7.13	7.08	<a href="#">hsa-let-7c</a>	0.97 0.97	491 855	-20.9 -21.5	<u>UCAUAC</u> <u>ACU</u> <u>UACCUCA</u> : <u>GGUAUG</u> <u>UGG</u> <u>AUGGAGU</u> <u>AUC UAUAGC CU</u> <u>UACCUCA</u> : <u>UGG AUGUUG GA</u> <u>AUGGAGU</u>
mm	7.13	7.30	<a href="#">hsa-let-7c</a>	0.97 0.97	481 852	-19.7 -22.1	<u>ACC</u> <u>GUAC</u> <u>U</u> <u>UACCUCA</u> : <u>UGG</u> <u>UAUG</u> <u>G</u> <u>AUGGAGU</u> <u>ACC UA AGC CU</u> <u>UACCUCA</u> : <u>UGG AU UUG GA</u> <u>AUGGAGU</u>
rn	7.13	7.37	<a href="#">hsa-let-7c</a>	0.97 0.97	486 865	-19.7 -22.1	<u>ACC</u> <u>GUAC</u> <u>U</u> <u>UACCUCA</u> : <u>UGG</u> <u>UAUG</u> <u>G</u> <u>AUGGAGU</u> <u>ACC UA AGC CU</u> <u>UACCUCA</u> : <u>UGG AU UUG GA</u> <u>AUGGAGU</u>
cf	7.13	7.03	<a href="#">hsa-let-7c</a>	0.97 0.97	476 840	-22.1 -21.5	<u>UCAUAC</u> <u>ACU</u> <u>UACCUCA</u> : <u>GGUAUG</u> <u>UGG</u> <u>AUGGAGU</u> <u>AUC UAUAGC CU</u> <u>UACCUCA</u> : <u>UGG AUGUUG GA</u> <u>AUGGAGU</u>
gg	7.13	8.28	<a href="#">hsa-let-7c</a>	0.98 0.98	271 632	-22.1 -20.5	<u>UCAUAC</u> <u>ACU</u> <u>UACCUCA</u> : <u>GGUAUG</u> <u>UGG</u> <u>AUGGAGU</u> <u>UC UAUAGC CU</u> <u>UACCUCA</u> : <u>GG AUGUUG GA</u> <u>AUGGAGU</u>
fr	7.13	3.23	<a href="#">hsa-let-7c</a>	0.96	592	-21.2	<u>AAC CAUA</u> <u>ACUU</u> <u>UACCUCA</u> : <u>UUG</u> <u>GUAU</u> <u>UGGA</u> <u>AUGGAGU</u>