



## **Supplemental Material to:**

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**p53 regulates nuclear GSK-3 levels through miR-34-  
mediated Axin2 suppression in colorectal cancer cells**

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**miRNA-34a-5p, -b-5p, -c-5p matched site on Axin2-3' UTR**

hsa-miR-34a-5p 3' UTR (240-265)	<pre> 3'  U  UU      G  GUCGAU      UCUGUGACGG  U  5'  C  UUGGCUA  UUGA  AGAUGCUGCC  G    UC </pre>	-26.4 kcal/mol
hsa-miR-34a-5p 3' UTR (258-282)	<pre> 3'  U  U  U  G  CG      AUUCU  UGACGGU                                       5'  GC  GCC  GU      UGAGA  ACUGCCA    U      U  AUU      G </pre>	-30.0 kcal/mol
hsa-miR-34a-5p 3' UTR (400-420)	<pre> 3'  U      UC  A  C      U                                    5'  GUUGG  G  UU  UGUGACGG                                    5'  CAGUU  U  GA  AUGCUGCU    UA  G  U </pre>	-24.5 kcal/mol
hsa-miR-34a-5p 3' UTR (824-846)	<pre> 3'  G  U  U  G  CGAUU  UG  UGACGGU                                    5'  G  GGCC  GCUAG  AU  ACUGCCG    A      U      A  C </pre>	-30.0 kcal/mol
hsa-miR-34b-5p 3' UTR (240-265)	<pre> 3'  UU      U      CUGUGACGGAU                                 5'  G  AGUCGAU  A  U  GAUGCUGCCUG    UC      U  GAA </pre>	-28.1 kcal/mol
hsa-miR-34b-5p 3' UTR (400-420)	<pre> 3'  GUUA      U  G      UGACGGU                                 5'      GUCGA  UACU  UGACGGU    CAGUU  AUGG  GCUGCUU    U      AUAU </pre>	-22.0 kcal/mol
hsa-miR-34b-5p 3' UTR (826-846)	<pre> 3'  G  A  U      ACU      A                                 5'  UU  G  CGAUU  UGUGACGG  U                                 5'  GG  C  GCUAG  CACUGCC  G    C  U      AAU </pre>	-24.2 kcal/mol
hsa-miR-34c-5p 3' UTR (240-264)	<pre> 3'  C  UU      U      A  UGUGACGGA                                 5'  G  AGUCGAU  G  U  AUGCUGCCU    UC      U  GAAG </pre>	-25.0 kcal/mol
hsa-miR-34c-5p 3' UTR (400-420)	<pre> 3'  CGUUA      U  UG      AUGUGACGGA                                 5'      GUCGA  AU  UAUGCUGCUU    CAGUU  AU  U  GGA </pre>	-21.1 kcal/mol
hsa-miR-34c-5p 3' UTR (824-845)	<pre> 3'  G  A  U      GA  U  GUGACGG  A                                 5'  C  UU  G  CGAUU  A  CACUGCC                                 5'  G  GG  C  GCUAG  A  CACUGCC    A  C  U      A  U </pre>	-25.3 kcal/mol

**miRNA-34a-5p, -b-5p, -c-5p matched site on Axin2-5' UTR**

hsa-miR-34a-5p 5' UTR (28-48)	<pre> 3'  UG      C      GU                              5'  UUGGUCGAUU  UG  UGACG                              5'  AGUCGGCUGG  GC  GCUGC    A  CG      G </pre>	-22.6 kcal/mol
hsa-miR-34a-5p 5' UTR (38-63)	<pre> 3'  UG      UC  UGUGA      U                              5'  UUGGUCGAU      C  GG                              5'  AGCCGGCUG      G  CC    CGCUUUGAUAA  G  U  U </pre>	-23.4 kcal/mol
hsa-miR-34b-5p 5' UTR (28-51)	<pre> 3'  G      A  U      U                              5'  UUAGUCGAUU  C  G  UGACG  GA                              5'  AGUCGGCUGG  G  C  GCUGC  CU    A  C  G      G  U </pre>	-24.5 kcal/mol
hsa-miR-34c-5p 5' UTR (1-17)	<pre> 3'  C  G  UUAGU  GAUUGA  GUG  CGGA                              5'      A  CUGGCU  CGC  GCCU    C      GA </pre>	-26.0 kcal/mol
hsa-miR-34c-5p 5' UTR (28-63)	<pre> 3'  CG  UUAGUCGAU      UGAUGUGA      C  GGA                                 5'  AGUCGGCUG      GAGCCG  GCUGCUCU      G  CCU    UUGAUAA  G  U </pre>	-26.2 kcal/mol