

## **Supplementary Information**

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Enhancing the Productivity and Proliferation of CHO-K1 Cells by Oncoprotein YAP (Yes-Associated Protein)

### **The names of the authors:**

Farnaz Roshanmehr<sup>1,2</sup>, Shahriyar Abdoli<sup>1,2</sup>, Zahra Bazi<sup>2</sup>, Maryam Jari<sup>1,2</sup>, Majid Shahbazi<sup>1,3\*</sup>

### **The affiliation of authors:**

<sup>1</sup> Medical Cellular & Molecular Research Center, Golestan University of Medical Sciences, Gorgan, Iran

<sup>2</sup> Department of Medical Biotechnology, School of Advanced Technologies in Medicine, Golestan University of Medical Sciences, Gorgan, Iran

<sup>3</sup> Arya Tina Gene (ATG), Biopharmaceutical Company, Gorgan, Iran

### **\* Corresponding author:**

Majid Shahbazi

E-mail: [shahbazimajid@yahoo.co.uk](mailto:shahbazimajid@yahoo.co.uk), [Shahbazim@atgbio.com](mailto:Shahbazim@atgbio.com)

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mYAP      1 MEPAQQPPPPQAPQGFPAPP-----SVSPAGTPAAPPAPPAGHQVVHVRGD 45
chYAP     1 MEPAQQPPPPQAPQGPVPPSA-----PAPPSGTPAAPPAPPAGHQVVHVRGD 47
hYAP      1 MDPGQQPPPPQAPQGGQPPSQPPQGGFPSPGPGQPAPAATQAAPQAPPAGHQIVHVRGD 60
          *:.*.*****      *                      .*:.* *** *****:*****

mYAP      46 SETDLEALFNAVMPKNTANVPQTVPMRLRKLDPDSFFKPPEPKSHSRQASTDAGTAGALT 105
chYAP     48 SETDLEALFNAVMPKNTANVPQTVPMRLRKLDPDSFFKPPEPKSHSRQASTDAGTAGALT 107
hYAP      61 SETDLEALFNAVMPKNTANVPQTVPMRLRKLDPDSFFKPPEPKSHSRQASTDAGTAGALT 120
          *****

mYAP      106 QHVRAHSSPASLQLGAVSPGTLTASGVVSGPAAAPAAQHHLRQSSFEIPDDVPLPAGWEMA 165
chYAP     108 QHVRAHSSPASLQLGAVSPGTLTPT-VVSGPAATPAAQHHLRQSSFEIPDDVPLPAGWEMA 166
hYAP      121 QHVRAHSSPASLQLGAVSPGTLTPTGVVSGPAATPTAQHHLRQSSFEIPDDVPLPAGWEMA 180
          *****.: *****:*.*****

mYAP      166 KTSSGQRYFLNHNDQTTTWDPRKAMLSQLNVPAPASPAVPQTLMNSASGPLPDGWEQAM 225
chYAP     167 KTSSGQRYFLNHIDQTTTWDPRKAMLSQLNVPTPASTAVPQTLMNSASGPLPDGWEQAM 226
hYAP      181 KTSSGQRYFLNHIDQTTTWDPRKAMLSQMNVTAPTSPPVQQNMNSASGPLPDGWEQAM 240
          ***** *****:*.:.:*. *.:*****

mYAP      226 TQDGEVYYINHKNKTTSWLDPRLDPRFAMNQIRITQSAPVKQPPPLAPQSPQGGVLGGGSS 285
chYAP     227 TQDGDVYYINHKNKTTSWLDPRLDPRFAMNQIRITQSAPVKQPPPLAPQSPQGGVLGGGNS 286
hYAP      241 TQDGEIYYINHKNKTTSWLDPRLDPRFAMNQIRISQSAPVKQPPPLAPQSPQGGVMGGSNS 300
          ****:;*****:*****:*****:*.:.

mYAP      286 NQQQQIQQLQQLQMEKERLRKQQLFRQELALRSQLPTLEQDGGTQNAVSSPGMSQELRT 345
chYAP     287 SQQQQMQQLQQLQMEKERLRKQQLFRQELALRSQLPTLEQDGGTQNAVSSPGMSQELRT 346
hYAP      301 NQQQQMRLQQLQMEKERLRKQQLFRQELALRSQLPTLEQDGGTQNPVSSPGMSQELRT 360
          .****:;*****:*****:*.*****

mYAP      346 MTTNSSDPFLNSGTYSRDESSTDSGLSMSSYSIPRTPDDFLNSVDEMDTGDITISQSTLPS 405
chYAP     347 MTTNSSDPFLNSGTYSRDESSTDSGLSMSSYSVPRTPDFFLNSVDEMDTGDITINQSTLPS 406
hYAP      361 MTTNSSDPFLNSGTYSRDESSTDSGLSMSSYSVPRTPDFFLNSVDEMDTGDITINQSTLPS 420
          *****:*****:*****

mYAP      406 QQSRFPDYLEALPGTNVDLGTLEGDAMNIEGELMPSLQEALSSSEIL-DVESVLAATKLD 464
chYAP     407 QQSRFPDYLEAIPGTNVLDLGTLEGDAMNIEGELMPSLQEALSSDILNDMESVLAATKLD 466
hYAP      421 QQNRFPDYLEAIPGTNVLDLGTLEGDMNIEGELMPSLQEALSSDILNDMESVLAATKLD 480
          **.*****:*****:*****:*.*****

mYAP      465 KESFLTWL 472
chYAP     467 KESFLTWL 474
hYAP      481 KESFLTWL 488
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**Fig. S1** Amino acid sequence alignment of YAP from various organisms, including human, mouse, and Chinese hamster, for the identification of the consensus phosphorylation sequence for LATS. The LATS consensus phosphorylation sites are highlighted.

ATGGAGCCCGCGCAGCAGCCGCGCCCGCCAGCCGGCCCCGCAAGGCCCCGTGCCGCCGTCCGCGCCCGCGC  
CGCCGTCAAGGACCCCCGCGGCCCGCCCGCGCCCCCGGCCGCGCCACCAAGTCGTGCACGTCCGCGGAGA  
C**GCG**GAGACCGACCTGGAGGCGCTCTTCAACGCCGTCATGAACCCCAAGACGGCCAACGTGCCGCGAGACC  
GTGCCCATGCGGCTGCGCAAGCTGCCCCGACTCCTTCTTCAAGCCGCCGAGCCCCAAGTCCCACTCGCGAC  
AGGCT**GCT**ACTGATGCAGGCACTGCAGGAGCTCTGACTCCACAGCACGTTCCGGGCTCAC**GCCGCT**CCAGC  
**AGCC**CTGCAGCTGGGAGCCGTTTCTCCTGGGACTCTCACCCCTACTGTGGTGTCTGGTCTCTGCAGCCACC  
CCTGCAGCACAGCATCTCCGACAG**GCTGCC**TTTGAGATCCCTGATGATGTACCCCTGCCTGCAGGCTGGG  
AGATGGCCAAGACATCGTCTGGTCAGAGATACTTCTTAAATCACATCGATCAGACAACAACATGGCAGGA  
CCCCAGGAAGGCCATGCTCTCCCAACTGAATGTCCCTACGCCTGCCAGCACAGCAGTGCCTCAGACCCTG  
ATGAACTCCGCCTCAGGACCTCTTCTGATGGATGGGAGCAAGCCATGACGCAGGATGGAGATGTGTACT  
ACATAAACATAAGAACAAGACTACGTCTGGCTGGACCCAAGGCTCGACCCTCGTTTTGCTATGAACCA  
GAGAATCACTCAGAGCGCTCCAGTGAAGCAGCCGCCACCCCTGGCTCCCCAGAGCCCACAGGGAGGTGTC  
CTGGGTGGTGGCAACTCCAGCCAGCAGCAGCAGATGCAACTGCAGCAGCTCCAGATGGAGAAGGAGAGAC  
TGCGGTTGAAACAGCAAGAATTACTGCGGCAGGAATTAGCTCTCCGAAGCCAGTTGCCCACACTGGAGCA  
GGACGGAGGAACCTCAGAATGCTGTGTCTTCCCCCGGGATGTCTCAGGAATTGAGGACAATGACAACCAAT  
AGTTCAGATCCCTTTCTTAACAGTGGCACCTATCACTCTAGAGATGAG**GCC**ACGGACAGTGGCCTCAGCA  
TGAGTAGCTACAGTGTCCCTCGGACCCCGGATGACTTCCTGAACAGTGTGATGAAATGGATACAGGTGA  
CACTATCAACCAAAGCACCCCTGCCTTCACAGCAGAGCCGTTTCCAGATTACCTTGAAGCCATCCCTGGG  
ACAAATGTGGACCTTGGAACACTGGAAGGAGATGCGATGAACATAGAAGGAGAGGAGCTGATGCCAGCC  
TGCAGGAAGCACTGAGTTCCGACATCCTTAATGACATGGAGTCTGTGTTGGCTGCCACCAAGCTAGATAA  
AGAAAGCTTTCTCACATGGTTATAG

**Fig. S2** Nucleotide sequence encoding the YAP-5SA which is inserted within the PB513B-1 plasmid. Letters in red indicate bases changed to create the codon for alanine, resulting in the substitution of the serine codon with alanine, shown in highlighted color.