

Supplementary Figure 1: Sequence of WAP-Her2 transgene

Mouse WAP promoter

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1 CTGGGGATCCTCTAGAGTCGACCTGCAGGCATGCAAGCTTGAATTCTTTCACTGCTAAAACAGGGCGGGAGGAGTCCAGAGCCCTGCCACTGGGTGCAGA 100
101 ACATGAAGACCCCTTGAGTGGAAAGGGTTATACAGCTGGACAGTGGTGGCGCACACCTTTAATCCCAGCACTCGGGAGGCAGAGGCAGACGGATCTCTG 200
201 AGTTCGAGGCCAGCCTGGTCTACAGAATGAGTTCCGGGACAGCCAGGGCCACACAGAGAAACTCTTGTCTCGAAAAACCAAAAAAAAAACAAAAAGGAAA 300
301 GGGGTTACACAACAGAGACTCAGGTCACAGCTACCCATCACACACAGGATACACATACAAAGGTGTTTACAGGCAGATGAGGAACGAGGAGAAGGGGCTC 400
401 AAGCAAGGGCCTAAAGTTTCTTTTTTTTTTTTTTCTTCTTTTTTTTTTCCCTGTGGCCTAGAGTTTCAAGAGGCTGAGGACCTAGGCATGAACCAAGAGG 500
501 GGCCAAACCACTTCAAGAAGCAGGGGGTAGCAGCAGAATCTCACTATCAGCCTTGAGCACAGCTGGGAAGGAGATCCATGGAAACAACCAAGAAAGAGCT 600
601 GAAAGGGGCTGGAGAGATGGCTCAGCAGTTAAGAGCACTGAGTGCTCTTCCGAAGTCCTAGATTCAAATCCCAGCAACCATATGGTGGGTCAACAACCATC 700
701 TGTAATGAGATCTGATGCCCTCTTCTGGTGTGTCTGAAGACAGCTACAGTGTACTTATGTATAATAAAATAAAATCTTTAGAAAGGGAGGGGGGAGA 800
801 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGCTGGAAGAGGGAGATCTGGGAAGTCTGCTGGCTTTATATGCTGACCA 900
901 TATATAGTCACCTGTGTTTACACACTGTGCTCATCACTTTGAAATCTCAGTGGTTTCTTCTTTGAGCCTGTGTCTGTAAGTTCACCAGGAGAGTGGTACA 1000
1001 TAGGCAAGAATAACAGCCAGTGGGCATAGGACACAGAGTGCATGGGCCCCAGCAAGACTGTAGAGAGAACAGAGCTCTGGCTCCTAAGACATAGGGCCTT 1100
1101 CTGGGAAACTCAAGCAGCCAAGCAACCCTAGCCAGCCCTTTCTCTGGTGGCCCTCCTTCTGTTCAGCAAAGGCGGAAATGGGAACAGGGGTGGAAGCAGA 1200
1201 GCATTGGCAGAGCATAGGTATGACTTAGTCTTGACTAACACAAGCATGGCAGTAGCCTGACAGTGGCCTAAATGTGGGGATGACTGCCTTAGATGGGGAT 1300
1301 GACTGCCTTAGATGGGCATGACTGCCTTAGATGGGGATGACTGCCTTAGATGGGGATGACTGCCTTAGATGGAACAACAAACATCTATGGGCATGCTGTG 1400
1401 GAACACTGGCCACACACGGAAGTGAAGGCACTGGCAATTTCCATAGGGCAGTTAAACCTAAAAGCATGCTCACACTCAACAGGCTGCCGGAATCTCATG 1500
1501 AGACACCTGGAATAGACGAATGTAGAAACAGAGCAGAGAGTTGGTTGCCAAGGTCTGGGGGCTCAGAGGACAAGCAAGAGGCGCGGCTTTCTTTGGGGC 1600
1601 TGGCATGAAAGGAAATATCGAGGTTACAGCCTGAGAGGGCTTCCCCTGACACTTCGTATTCAAAGAGGCCATGGGCACCAGTGAAGACAAAGGAGTATGG 1700
1701 CCTGCACCACAGGCTGGCNCTGACAGTCAGTAAGCACACAGTCACTCTGGGTCATCCCATCCCCTTCTTGCAAGAGAAATCAAGGAAATGTCCCGAGAA 1800
1801 CAATGGGGCACAGTGCCAGCAGGACATCTCTTCTGCCCATGGCACCCCTTTGGCACGGTATGGGCCCTTCTGGGAAGGTGGCCTTCCAAATTGCTCTGCA 1900
1901 CAGGCAGCTCCTTTTCAATGTATGCCCAGACTCTCTACATGGAGCAAGCGCTCCACACTCTTAGAAGAATTTTAGAAAACTCAGAAAAGCACCAGGA 2000
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2001 GAAGTCACCCTCAGATGTAGCCCGACTCGAGCCTTGCTCAAAACCTCCTGTCTTGTTTTCTATGTGACCTGTACAAATTTGGAGCTCAGAATTGCCTTT 2100
2101 GTCTGTGATGGGTTCCAACCCAACCACTCAAAGTGACACTTGTACATTTGTCACTGATCCTATTTCTTCTTTTTCTGCTCCTTCATTTTCTCCGCTTTC 2200
2201 ATAATAAACAAGTATTACTTTTTTAAGTGGGGGAAAAAATGACCACCTTACAAAGGACTTTTTTAAAAATGGCCTCCATTGTGGCCCTTGTTCCTGGCAGC 2300
2301 CTGGGCCTGCTCTCTCTGTGTGGCCAAGAAGGAAGTGTGTAGCCCATCTAGAGCTGTGCCAGCCTCTTCCCCACCCCACCCCAAAGTCTTCCTCCTG 2400

2401 TGGGTCTTTTAAATGCATCCCAGACACTCAGACAGCCATCAGTCACTTGCCTGAC **AGE1** **HINDIII** **HUMAN ERBB2 CDNA 5' UTR** **ACCGGTACC** **CAGCTT** TGGGCAGCCGCGCGCCCTTCCCACGGGGC 2500
2501 CCTTTACTGCGCCGCGCGCCCGGCCCCACCCCTCGCAGCACCCCGCGCCCCGCGCCCTCCCAGCCGGGTCCAGCCGGAGCCATGGGGCCGGAGCCGCAG 2600

ORF
2601 TGAGCACC**ATG**GAGCTGGCGGCCTTGTGCCGCTGGGGGCTCCTCCTCGCCCTCTTGCCCCCGGAGCCGCGAGCACCCAAGTGTGCACCGGCACAGACAT 2700
M E L A A L C R W G L L L A L L P P G A A S T Q V C T G T D M
2701 GAAGCTGCGGCTCCCTGCCAGTCCCAGACCCACCTGGACATGCTCCGCCACCTCTACCAGGGCTGCCAGGTGGTGCAGGGAACCTGGAACCTCACCTAC 2800
K L R L P A S P E T H L D M L R H L Y Q G C Q V V Q G N L E L T Y
2801 CTGCCCACCAATGCCAGCCTGTCCTTCCTGCAGGATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGGTCCCCTGCAGA 2900
L P T N A S L S F L Q D I Q E V Q G Y V L I A H N Q V R Q V P L Q R
2901 GGCTGCGGATTGTGCGAGGCACCCAGCTCTTTGAGGACAACCTATGCCCTGGCCGTGCTAGACAATGGAGACCCGCTGAACAATACCACCCCTGTCACAGG 3000
L R I V R G T Q L F E D N Y A L A V L D N G D P L N N T T P V T G
3001 GGCCTCCCCAGGAGGCCTGCGGGAGCTGCAGCTTCGAAGCCTCACAGAGATCTTGAAAGGAGGGGTCTTGATCCAGCGGAACCCCCAGCTCTGCTACCAG 3100
A S P G G L R E L Q L R S L T E I L K G G V L I Q R N P Q L C Y Q
3101 GACACGATTTTGTGGAAGGACATCTTCCACAAGAACAACCAGCTGGCTCTCACACTGATAGACACCAACCGCTCTCGGGCCTGCCACCCCTGTTCTCCGA 3200
D T I L W K D I F H K N N Q L A L T L I D T N R S R A C H P C S P M
3201 TGTGTAAGGGCTCCCGCTGCTGGGGAGAGAGTTCTGAGGATTGTCAGAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCCCCGCTGCAAGGGGGCCACT 3300
C K G S R C W G E S S E D C Q S L T R T V C A G G C A R C K G P L
3301 GCCCACTGACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCCAAGCACTCTGACTGCCTGGCCTGCCTCCACTTCAACCACAGTGGCATCTGT 3400
P T D C C H E Q C A A G C T G P K H S D C L A C L H F N H S G I C
3401 GAGCTGCACTGCCAGCCCTGGTCACCTACAACACAGACACGTTTGTAGTCCATGCCCAATCCCAGGGGCCGGTATACATTGCGCGCCAGCTGTGTGACTG 3500
E L H C P A L V T Y N T D T F E S M P N P E G R Y T F G A S C V T A

3501 CCTGTCCCTACAACCTACCTTTCTACGGACGTGGGATCCTGCACCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAGGATGGAACACAGCGGTG 3600
C P Y N Y L S T D V G S C T L V C P L H N Q E V T A E D G T Q R C

3601 TGAGAAGTGCAGCAAGCCCTGTGCCCAGTGTGCTATGGTCTGGGCATGGAGCACTTGCGAGAGGTGAGGGCAGTTACCAGTGCCAATATCCAGGAGTTT 3700
E K C S K P C A R V C Y G L G M E H L R E V R A V T S A N I Q E F

3701 GCTGGCTGCAAGAAGATCTTTGGGAGCCTGGCATTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCCGCTCCAGCCAGAGCAGCTCC 3800
A G C K K I F G S L A F L P E S F D G D P A S N T A P L Q P E Q L Q

3801 AAGTGTGTTGAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCTGACCTCAGCGTCTTCCAGAACCTGCAAGTAAT 3900
V F E T L E E I T G Y L Y I S A W P D S L P D L S V F Q N L Q V I

3901 CCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTGACCCTGCAAGGGCTGGGCATCAGCTGGCTGGGGCTGCGCTCACTGAGGGAACCTGGGCAGTGGA 4000
R G R I L H N G A Y S L T L Q G L G I S W L G L R S L R E L G S G

4001 CTGGCCCTCATCCACCATAACACCCACCTCTGCTTCGTGCACACGGTGCCCTGGGACCAGCTCTTTCGGAACCCGCACCAAGCTCTGCTCCACACTGCCA 4100
L A L I H H N T H L C F V H T V P W D Q L F R N P H Q A L L H T A N

4101 ACCGGCCAGAGGACGAGTGTGTGGGCGAGGGCCTGGCCTGCCACCAGCTGTGCGCCCCGAGGGCACTGCTGGGGTCCAGGGCCCACCCAGTGTGTCAACTG 4200
R P E D E C V G E G L A C H Q L C A R G H C W G P G P T Q C V N C

4201 CAGCCAGTTCCTTCGGGGCCAGGAGTGCCTGGAGGAATGCCGAGTACTGCAGGGGCTCCCCAGGGAGTATGTGAATGCCAGGCACTGTTTGCCGTGCCAC 4300
S Q F L R G Q E C V E E C R V L Q G L P R E Y V N A R H C L P C H

4301 CCTGAGTGTGAGCCCCAGAATGGCTCAGTGACCTGTTTTGGACCGGAGGCTGACCAGTGTGTGGCCTGTGCCCCTATAAGGACCCTCCCTTCTGCGTGG 4400
P E C Q P Q N G S V T C F G P E A D Q C V A C A H Y K D P P F C V A

4401 CCCGCTGCCCCAGCGGTGTGAAACCTGACCTCTCTACATGCCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCTTGCCCCATCAACTGCAC 4500
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4501 CCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCCGCCGAGCAGAGAGCCAGCCCTCTGACGTCCATCATCTCTGCGGTGGTTGGCATTCTGCTGGTC 4600
H S C V D L D D K G C P A E Q R A S P L T S I I S A V V G I L L V

4601 GTGGTCTTGGGGGTGGTCTTTGGGATCCTCATCAAGCGACGGCAGCAGAAGATCCGGAAGTACACGATGCGGAGACTGCTGCAGGAAACGGAGCTGGTGG 4700
V V L G V V F G I L I K R R Q Q K I R K Y T M R R L L Q E T E L V E

4701 AGCCGCTGACACCTAGCGGAGCGATGCCCCAACAGGCGCAGATGCGGATCCTGAAAGAGACGGAGCTGAGGAAGGTGAAGGTGCTTGGATCTGGCGCTTT 4800
P L T P S G A M P N Q A Q M R I L K E T E L R K V K V L G S G A F

4801 TGGCACAGTCTACAAGGGCATCTGGATCCCTGATGGGGAGAATGTGAAAATTCCAGTGGCCATCAAAGTGTTGAGGGAAAACACATCCCCCAAAGCCAAC 4900
G T V Y K G I W I P D G E N V K I P V A I K V L R E N T S P K A N

4901 AAAGAAATCTTAGACGAAGCATACGTGATGGCTGGTGTGGGCTCCCCATATGTCTCCCGCCTTCTGGGCATCTGCCTGACATCCACGGTGCAGCTGGTGA 5000
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5001 CACAGCTTATGCCCTATGGCTGCCTCTTAGACCATGTCCGGGAAAACCGCGGACGCCTGGGCTCCCAGGACCTGCTGAACTGGTGTATGCAGATTGCCAA 5100
Q L M P Y G C L L D H V R E N R G R L G S Q D L L N W C M Q I A K

5101 GGGGATGAGCTACCTGGAGGATGTGCGGCTCGTACACAGGGACTTGGCCGCTCGGAACGTGCTGGTCAAGAGTCCCAACCATGTCAAAATTACAGACTTC 5200
G M S Y L E D V R L V H R D L A A R N V L V K S P N H V K I T D F

5201 GGGCTGGCTCGGCTGCTGGACATTGACGAGACAGAGTACCATGCAGATGGGGGCAAGGTGCCCATCAAGTGGATGGCGCTGGAGTCCATTCTCCGCCGGC 5300
G L A R L L D I D E T E Y H A D G G K V P I K W M A L E S I L R R R

5301 GGTTACCCACCAGAGTGATGTGTGGAGTTATGGTGTGACTGTGTGGGAGCTGATGACTTTTGGGGCCAAACCTTACGATGGGATCCCAGCCCCGGGAGAT 5400
F T H Q S D V W S Y G V T V W E L M T F G A K P Y D G I P A R E I

5401 CCCTGACCTGCTGGAAAAGGGGAGCGGCTGCCCCAGCCCCCATCTGCACCATTGATGTCTACATGATCATGGTCAAATGTTGGATGATTGACTCTGAA 5500
P D L L E K G E R L P Q P P I C T I D V Y M I M V K C W M I D S E

5501 TGTCGGCCAAGATTCCGGGAGTTGGTGTCTGAATTCTCCCGCATGGCCAGGGACCCCCAGCGCTTTGTGGTCATCCAGAATGAGGACTTGGGCCCAGCCA 5600
C R P R F R E L V S E F S R M A R D P Q R F V V I Q N E D L G P A S

5601 GTCCCTTGGACAGCACCTTCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGTGGATGCTGAGGAGTATCTGGTACCCCAGCAGGGCTTCTT 5700
P L D S T F Y R S L L E D D D M G D L V D A E E Y L V P Q Q G F F

5701 CTGTCCAGACCCTGCCCCGGGCGCTGGGGGCATGGTCCACCACAGGCACCGCAGCTCATCTACCAGGAGTGGCGGTGGGGACCTGACACTAGGGCTGGAG 5800
C P D P A P G A G G M V H H R H R S S S T R S G G G D L T L G L E

5801 CCCTCTGAAGAGGAGGCCCCCAGGTCTCCACTGGCACCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTGACCTGGGAATGGGGGCAGCCAAGGGGC 5900
P S E E E A P R S P L A P S E G A G S D V F D G D L G M G A A K G L

5901 TGCAAAGCCTCCCCACACATGACCCAGCCCTCTACAGCGGTACAGTGAGGACCCACAGTACCCCTGCCCTCTGAGACTGATGGCTACGTTGCCCCCCT 6000
Q S L P T H D P S P L Q R Y S E D P T V P L P S E T D G Y V A P L

6001 GACCTGCAGCCCCCAGCCTGAATATGTGAACCAGCCAGATGTTTCGGCCCCAGCCCCCTTCGCCCCGAGAGGGCCCTCTGCCTGCTGCCCCGACCTGCTGGT 6100
T C S P Q P E Y V N Q P D V R P Q P P S P R E G P L P A A R P A G

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A T L E R P K T L S P G K N G V V K D V F A F G G A V E N P E Y L T

6201 CACCCAGGGAGGAGCTGCCCCTCAGCCCCACCCTCCTCCTGCCTTCAGCCAGCCTTCGACAACCTCTATTACTGGGACCAGGACCCACCAGAGCGGGG 6300
P Q G G A A P Q P H P P P A F S P A F D N L Y Y W D Q D P P E R G

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6301	GGCTCCACCCAGCACCTTCAAAGGGACACCTACGGCAGAGAACCCAGAGTACCTGGGTCTGGACGTGCCAGTGTGA	ACCAGAAGGCCAAGTCCGCAGAAG	6400
	A P P S T F K G T P T A E N P E Y L G L D V P V	STOP	
6401	CCCTGATGTGTCTCAGGGAGCAGGGAAGGCCTGACTTCTGCTGGCATCAAGAGGTGGGAGGGCCCTCCGACCAC	TTCAGGGGAACCTGCCATGCCAGG	6500
6501	AACCTGTCCTAAGGAACCTTCCTTCCTGCTTGAGTTCCCAGATGGCTGGAAGGGGTCCAGCCTCGTTGGAAGAGGAACAGCACTGGGGAGTCTTTGTGGA		6600
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BSRD1			
6801	GAACA	GCAATGGTGT	CAGTATCCAGGCTTTGTACAGAGTGCTTTTCTGTTTAGTTTTTACTTTTTTTGTTTTGTTTTTTTAAAG 6884