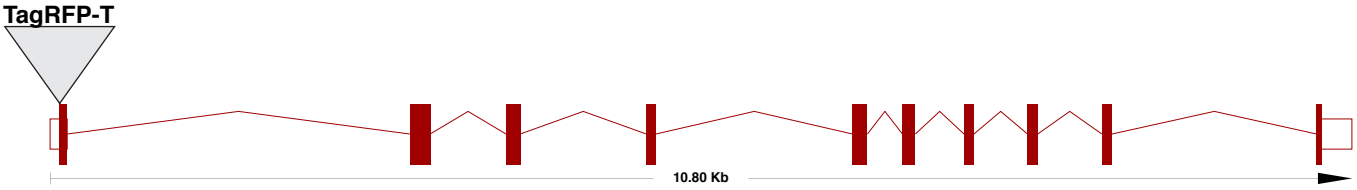
Akr1b7-TagRFP-T BAC construct details

Created 2 March 2010
Updated 23 March 2010

Gene Overview



Design comments

There is a single reported transcript for Akr1b7 with a single upstream ATG that is in frame with the reported open reading frame of the protein. This ATG site was selected for targeting the TagRFP-T reporter. In this construct, the endogenous Kozak sequence was left intact in the amplification primers used in creating the BAC targeting cassette.

Homology Arm Primers:

Akr1b7RFPL
AGAGAAAGCAGGCATTTCATCTGCTCACTCAGAGAACTCTCTGCAGCAACCATGGTGTCTAAGGGCGAAGA

Akr1b7bGHR
CAGGCCCACAAGGGGCATCTTGGCTTTGGTACTGAGTTCCACGAAGGTGGCCCATAGAGCCCACCGCATCC

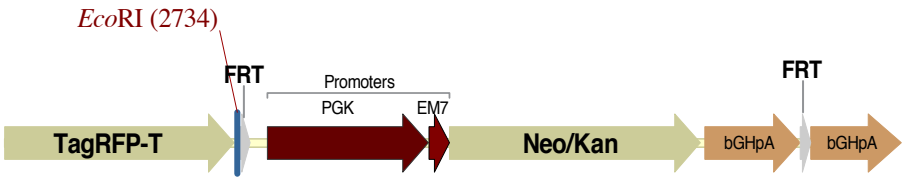
Target site in cDNA

cDNA fpr Akr1b7-001
Transcript length: 1281 bps, Translation length: 316 residues

ATAAAAATGTCACCAGCCTCCTTGTAGAGAAAGCAGGCATTTCATCTGCTCACTCAGAGA
ACTCTCTGCAGCAACCATGGCCACCTTCGTGGAACTCAGTACCAAAGCCAAGATGCCCCT
TGTGGGCCTGGGCACCTGGAAGTCTTCCCCAGGCCAAGTCAAGGAAGCCGTGAAGGCGGC
CATTGATGCTGGGTATCGCCACATTGACTGTGCCTATGTGTATCACAATGAGAATGAGGT
GGGAGAAGCTATCCAAGAGAAGATCAAAGAGAATGCTGTGAAGCGGGAGGATCTCTTCAT
CGTCAGCAAGCTGTGGGCCACATTCTTTGAGAAAAGCCTGGTGAAGAAAGCCTTCCAGAA
CACCCTCTCGGATCTGAAGCTGGACTATCTGGACCTGTATCTGGTCCACTGGCCACAGGG
ATTTCAGGCTGGGAATGCGTTATTACCCAAAGACAATAAAGGCAAAGTTCTCCTGAGTAA
ATCCACATTCTTGGATGCCTGGGAGGCCATGGAGGAACTGGTGGACCAGGGGCTGGTGAA
AGCTCTGGGCATCTCCAACTTCAACCACTTCCAGATTGAAAGGCTCCTGAACAAGCCTGG
ACTAAAACATAAGCCAGTGACCAACCAGATTGAGAGCCACCCTTATCTCACCCAGGAAAA
ACTGATCCAATACTGTCAATCCAAGGGCATCGCTGTTACAGCCTACAGTCCCCTGGGCTC
CCCAGACAGGCCTTATGCCAAGCCAGAAGACCCCGTAGTAATGGAGATTCCCAAGATCAA
AGAGATTGCTGCAAAACACAAGAAAACAGTAGCTCAGGTTCTGATTCGGTTCCATGTCCA
AAGGAATGTGGTGGTGATCCCCAAGTCTGTGACACCCTCACGCATACAGGAGAACCTGCA
GGTCTTCGACTTCCAGTTGAGTGAGGAGGACATGGCTGCCATTCTCAGCTTCAACAGGAA
CTGGAGGGCCTGTGACCTGTTGGATGCAAGGACTGAAGAGGACTATCCTTTCCACGAGGA
ATACTGAGGTCCACTTGCTTGATGAGATCCGTGCATGATAGATTCCTTCGTCTCTCTAAA
ATCAACCTGGATGTAGGCTACCATCTGGCAATGCAGGATTTAAATTTTTGTGTTCATCAA
GGAGCAAGAAAATGTTCCAGAGAAACGAAGGGCAACGGTTCTCACTAGCGAGGGCTGAGC
ACATGTTTGTCATCAGGAGCATGTAGTATGGTAACACTGAAGATACAATGATAGAACAAT
AAAAAAGCAATAATAG

Red bar = Left homology arm
Blue bar = Right homology arm

Reporter Cassette

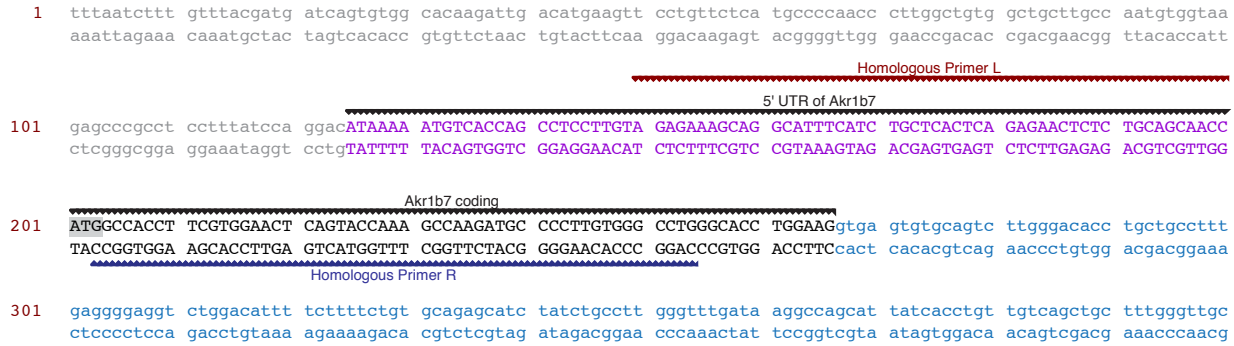


Fragment of pCZV-TagRFP-FpNF-bGHpA
3069bp

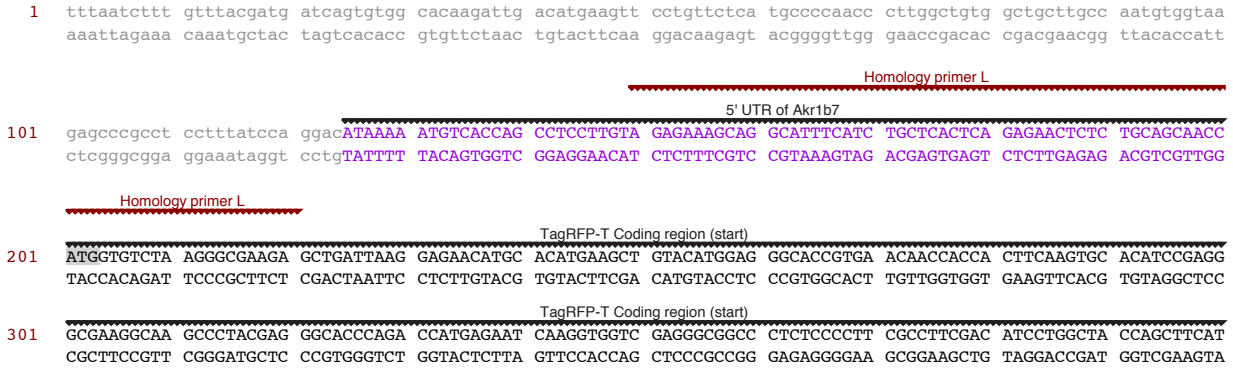
Akr1b7-TagRFP-T Target Site Details

Created 2 March 2010
Updated 21 March 2010

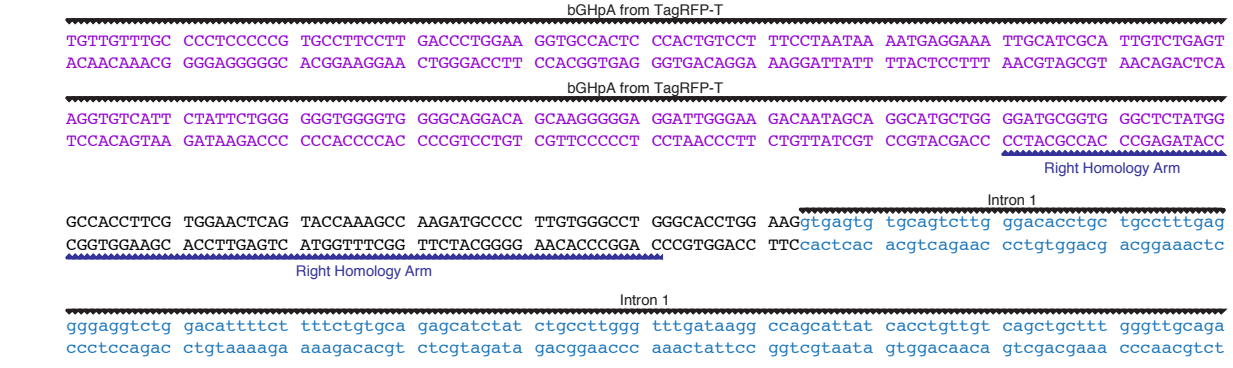
Endogenous Targeting Site



Targeted Site - 5'



Targeted Site - 3'



Reporter 5' end