**MKbpAll Vector**

**MKbpA:** MMTV-LTR cloned into KbpA vector (originally cloned by S. Chua, Baylor College of Medicine)

**MMTV-LTR:** 2.334 kb fragment cloned into BamHI site of KbpA vector

**KbpA vector:**
- KCR = 640 bp portion of rabbit beta-globin gene containing 18 bp of exon II, 572 bp of intron 2, and 50 bp of exon II

**Notes:**
- Having an intron 5’ of your gene greatly increases mammary gland-specific expression, even of large cDNAs (we found expression of 3.3 kb cDNA).
- The 5’ intron works much better than a 3’ intron, probably by disguising the cDNA as a terminal exon instead of an internal exon (large terminal exons occur in nature, while internal exons are almost always quite small).

**bpA** = bovine Growth Hormone poly A signal

The MKbpA construct was subcloned into pBluescript II, which contains BssHII sites flanking the MCS. These are used to cut out the whole transgene for microinjection into embryos. This final construct is called MKbpAll.

Clone your gene of interest into the EcoRI site at 3667, downstream of the KCR element.
MKbpAll sequence:

- Vector sequence in *italics*
- MMTV in *red*
- KCR intron in *blue*
- EcoRI cloning site *underlined*
- bGHpA in *green*
TCAATACGGGATAATACCGGCACATACGAGAACTTTAAAGTGCTCATCATTGGAAAC
GGTCTCTGGGGCGAAAAACTCTCAAGGAATCTTACCGCTTGGAGATCCAGTTCCAGTGTAAACC
CACTCGTACACCCCAACTGTATCTTCAGCATCTTTTACTTTCCACCACTCCTTTCTGGGTGAGCA
AAAACAGGAAGGGCAAAATGCCGCAAAAAAGGGAATAAGGCGACACGGAAATGTGTAATAC
TCATACCTCTCCCTTTTCAATATTATTGAAGCATTTATCAGGTTATTGTCTCATGAGCGG
ATACATATTGATGTATTTAGAAAAATAACAAATAGGGGTTCGCCGCACATTTCCCGGA
AAAGTGCCAC