

Genotyping Protocol for *mef2c*-73k-Cre and *mef2c*-AHF-Cre transgenic mice (Black Lab)

By Southern Blot (preferred)

Using a 387 bp NcoI-BamHI fragment from the Cre cDNA as a probe on an EcoRV digest

Sequence of the probe:

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ccatggcaccacaagaagaagaggaaggtgtccaatttactgaccgtacaccaaatttgccctgc
attaccggtc gatgcaacgagtgatgaggttcgcaagaacctgatggacatgttcagggatcgc
caggcgttttctgagcatacctggaaaatgcttctgtccgtttgccggtcgtggcgccatggt
gcaagttgaataaccggaaatggtttcccgcagaacctgaagatgttcgcgattatcttctata
tcttcaggcgcgcgggtctggcagtaaaaactatccagcaacatttgggccagctaaacatgctt
catcgtcggtcgggctgccacgaccaagtgacagcaatgctgtttcactggttggtgcgccgga
tcc
```

This will detect a band of ~700 bp for *mef2c*-73k-Cre (skeletal muscle Cre line)

This will detect a band of ~1.7 kb for *mef2c*-AHF-Cre (anterior heart field Cre line)

By PCR (faster; efficient for yolk sacs from young embryos)

Using the following primers:

CreA: 5'-tgc cac gac caa gtg aca gc-3' (20-mer)

CreB: 5'-cca ggt tac gga tat agt tca tg-3' (23-mer)

with 1 µl of tail DNA (from a 50 µl tail prep) under the following conditions:

94°C 5 min one cycle melt

94°C 30 sec

55°C 30 sec 30 cycles

72°C 1 min

72°C 7 min one cycle polish

This will detect a band of ~700 bp for either Cre transgenic line.