

## Genotyping of Cre Transgelin by PCR

**Purpose:** To identify presence of Cre transgene.

**Names:** Jackson's nomenclature is STOCK Tg(TagIn-cre)1Her/J; number 004746  
Common names: Sm22-Cre

**Primers:** Cre primers = GCGGTCTGGCAGTAAAACTATC (nt 726-748)  
GTGAAACAGCATTGCTGTCACTT (nt 827-805)  
Internal control (IL-2) = CTAGGCCACAGAATTGAAAGATCT  
(nt 7329-7352)  
GTAGGTGGAAATTCTAGCATCATCC  
(nt 7652-7628)

Notes: Does not distinguish homozygous from hemizygous mice.  
Also internal control may not work on IL-2-/- mice.

### PCR:

Reaction 7.5 µl sterile H<sub>2</sub>O  
10 µl buffer(2X; Promega)  
0.3 µl of each primer (concentration = 1 µl/100 pmol)  
0.3 µl Taq polymerase  
1 µl DNA

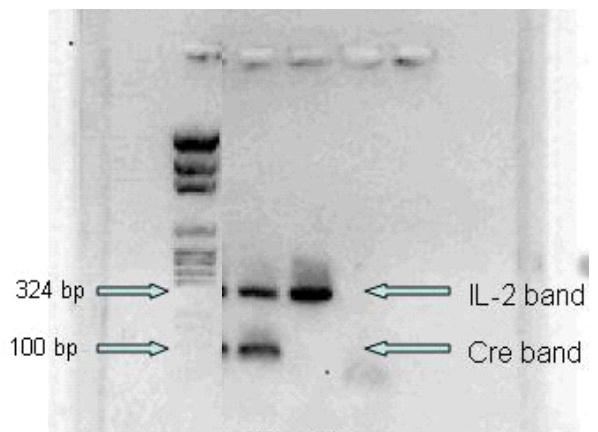
Program 1 cycle = 94°C - 3 min  
35 cycles = 94°C - 30 sec  
51°C - 1 min  
72°C - 1 min  
1 cycle = 72°C - 2 min

### Expected Bands on TBE Agarose Gel Electrophoresis:

Resolve DNA bands on 2% agarose gel.

Cre transgene = 100 bp

IL-2 internal control = 324 bp



**Reference:** Jackson Lab web site  
Z:\AAA PPG\Rateri Core\PCR  
protocols\TagIn-Cre.wpd