

B6.Cg-Tg(Alb-cre)21Mgn/J

品系编号：GAP1036

品系简称：Alb-Cre

品系特点：

Alb-cre 是通过转基因方式构建获得，主要用于肝脏组织 Cre-loxp 系统研究使用。

遗传学信息：

遗传背景：C57BL/6J

品系类型：Transgenic

相关基因：Alb-Cre

饲养信息：

配繁策略：

Homozygote x Homozygote

配繁特性：

该小鼠可以用纯合子繁殖，毛色为黑色。

基因型鉴定方案：

1) 鉴定引物：

Primer	Sequence 5' → 3'	Primer Type	Note
20239	TGC AAA CAT CAC ATG CAC AC	Wild type Forward	mouse Chr 13
20240	TTG GCC CCT TAC CAT AAC TG	Common	mouse Chr 13
oIMR5374	GAA GCA GAA GCT TAG GAA GAT GG	Mutant Forward	Alb promoter

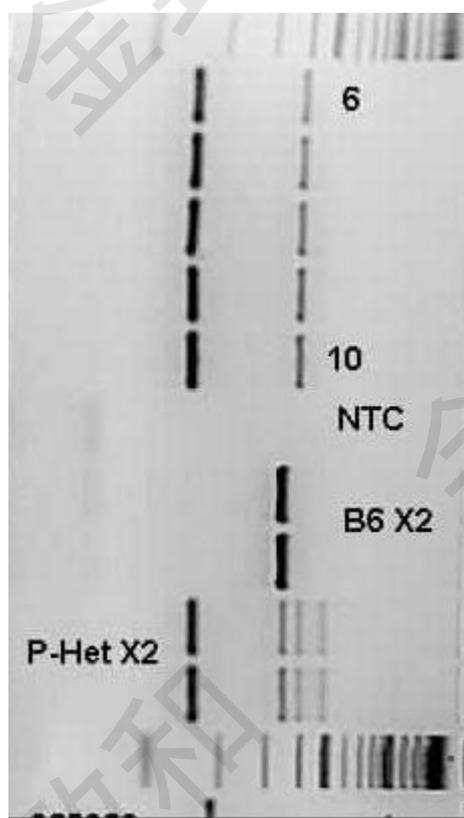
2) PCR 反应体系及扩增程序：

Reaction A

Cycling

COMPONENT	FINAL CONCENTRATION	STEP	TEMP °C	TIME	NOTE
ddH ₂ O		1	94.0	--	
Kapa 2G HS buffer	1.30 X	2	94.0	--	
MgCl ₂	2.60 mM	3	65.0	--	-0.5 C per cycle decrease
dNTP KAPA	0.26 mM	4	68.0	--	
20239	0.50 uM	5	--	--	repeat steps 2-4 for 10 cycles (Touchdown)
20240	0.50 uM	6	94.0	--	
oIMR5374	0.50 uM	7	60.0	--	
Glycerol	6.50 %	8	72.0	--	
Dye	1.00 X	9	--	--	repeat steps 6-8 for 28 cycles
Kapa 2G HS taq polym	0.03 U/ul	10	72.0	--	
DNA		11	10.0	--	hold

3) 预期结果：使用 3%琼脂糖凝胶电泳以分辨条带



Mutant = ~390 bp

Heterozygote = ~390 bp and 351 bp

Wild type = 351 bp

This assay is capable of distinguishing hemi from hom. A 3% gel is required to separate bands. An artifact band of ~150 bp is frequently present from the mutant allele.

具体可参考：

<https://www.jax.org/Protocol?stockNumber=003574&protocolID=26917>

应用领域:

1、用于肝脏组织的 Cre-lox 系统应用。

参考文献:

- 1、 Foxm1b transcription factor is essential for development of hepatocellular carcinomas and is negatively regulated by the p19ARF tumor suppressor. Kalinichenko VV , et al. Genes Dev 18(7):830-50
- 2、 Liver-specific deletion of negative regulator Pten results in fatty liver and insulin hypersensitivity [corrected]. Stiles B , et al. Proc Natl Acad Sci U S A 101(7):2082-7
- 3、 Liver-specific deletion of the NADPH-cytochrome P450 reductase gene: impact on plasma cholesterol homeostasis and the function and regulation of microsomal cytochrome P450 and heme oxygenase. Gu J , et al. J Biol Chem 278(28):25895-901