

Genotyping primers

LSL-Braf V600E

BRAF_{geno F}: ACTTTCATAGTCTAAGGGAGTTTGT

BRAF_{geno R}: CAAGATTCCTCTCCCAGCCG

WT: 300 bp, Mut: 230 bp; Primers Ratio 1:1

LSL-NrasQ61R

Nras-1: AGACGCGGAGACTTGCGGAGC

Nras-2: GCTGGATCGTCAAGGCGCTTTTCC

GENO2: GCAAGAGGCCCGGCAGTACCTA

WT: 487bp TG: 371 bp; Primer Ratio 1:1:1

PTEN Flox

PTEN _{genoF}: CAAGCACTCTGCGAACTGAG

PTEN _{genoR}: AAGTTTTTGAAGGCAAGATGC

WT: 160 bp Mut: 340 bp; Primer Ratio 1:1

CDKN2A Flox

CDKN2a _{genoFnew}: CCTGACTATGGTAGTAAAGTGG

CDKN2a _{genoRnew}: ACGTGTATGCCACCCTGACC

WT: 290 bp TG: 360 bp; Primer Ratio 1:1

CHC

C2 new 1: AATCATCCCAGGTGCACAGCATTGCGG

C2 new 2: CTTTGAGGGCTCATGAACCTCCCAGG

C2 new 6: GACGGCAATTTTCGATGATG

WT: 250bp TG: 400bp; Primer Ratio 1:1:1

Cags-LSL-rtTA3 (rosa26 knock-in)

Rosa A: AAAGTCGCTCTGAGTTGTTAT

Rosa B: GCGAAGAGTTTGTCCCTCAACC

Rosa C: CCTCCAATTTTACACCTGTTC

WT: 297bp TG: 350bp; Primer Ratio 2:1:2

Tyrosinase-CreERt2

CRE26: CCTGGAAAATGCTTCTGTGCG

CRE36: CAGGGTGTTATAAGCAATCCC

GABRA12: CAATGGTAGGCTCACTCTGGGAGATGATA

GABRA70: AACACACACTGGCAGGACTGGCTAGG

Cre: 400bp internal control: 300bp; Ratio 1:1:1:1

CHC Targeted ESC

PGK F: GAGCAGCTGAAGCTTATGGA

Hygro R: CTGAATTCCCCAATGTCAAG

oIMR7778: TATACTCAGAGCCGGCCT

oIMR7777: ACAGCGTGGTGGTACCTTAT
Targeted: 300bp internal control: 450bp; Primer Ratio 1:1:1:1

Recombination of Braf exon 3 and 14 in ESC

X3 F: CATGGCTTGAGTAAGTCTGC
X3 R: GATTCACATGGGACCTGAAC
X14 F: CTACCTAGTGAGACCATATCTC
X14 R: CAACAGTTGGATCCGTTTAAACG
WT: 400bp+250bp Recombined: 150bp; Primer Ratio 1.5:1

T7 assay primers

Pten Forward: CAGTCTCTGCAACCATCCAG
Pten Reverse: ATCTCATCTACACCCTAGAT

SYBR Green primers

rtTA3
Forward: TGACGACAAGGAAACTCGCT
Reverse: GGGGCAGAAGTGGGTATGAT
Product 134 bp

Mouse β -actin
Forward: TTGCTGACAGGATGCAGAAG
Reverse: ACATCTGCTGGAAGGTGGAC
Product 102 bp