

Supplementary Materials

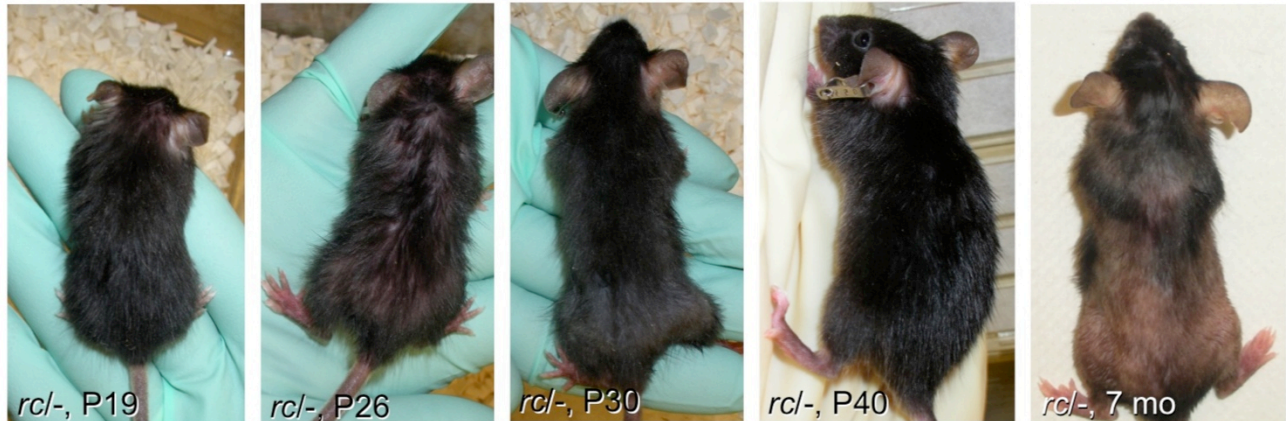


Figure S1. Mice heterozygous for both the *Mpz13* knockout allele and the *rc* allele (*rc*/-) developed gross hair abnormalities similar to those observed in the *rc/rc* and *Mpz13* *-/-* mice.

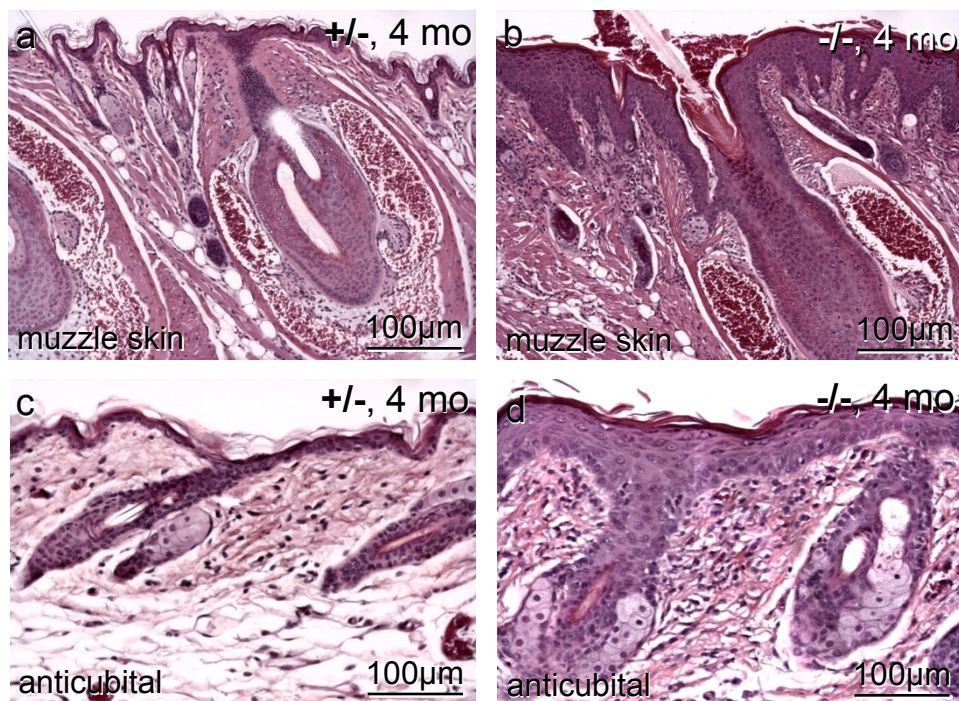


Figure S2. Inflammatory skin lesions in the muzzle skin (b) and anticubital area (d) in the *Mpz13* *-/-* mice but not control littermates (a, c).

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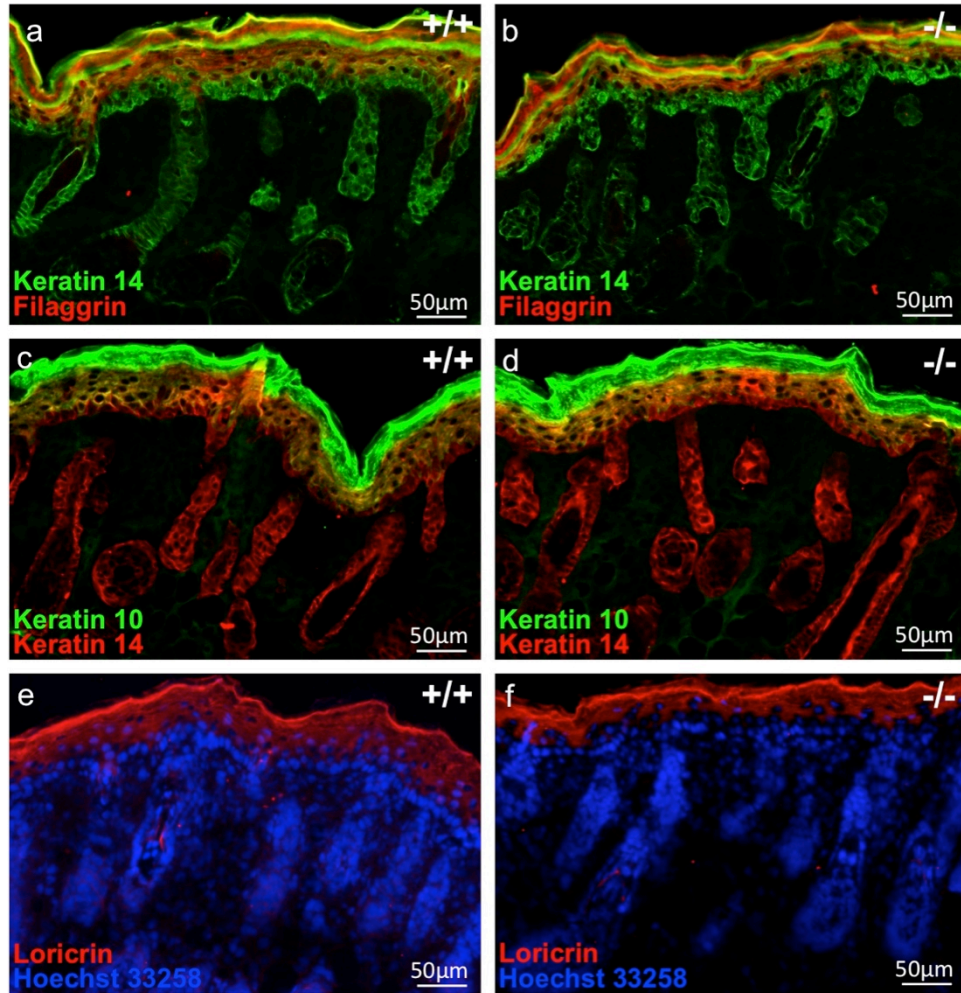


Figure S3. Indirect immunofluorescent staining of epidermal keratinocyte differentiation marker expression in newborn (P2) *Mpz/3* $+/+$ and $-/-$ littermate skin sections.

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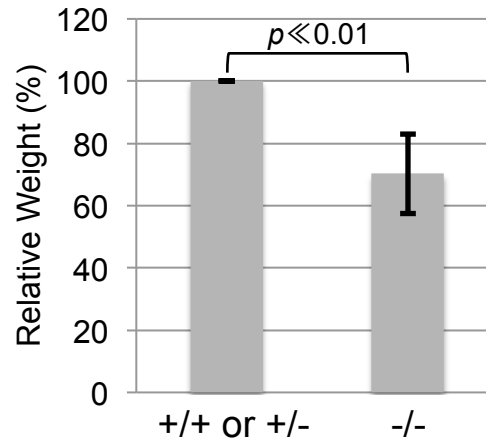


Figure S4. Relative body weight of *Mpz13* *-/-* mice more than 6 months old compared with *+/+* or *+/-* sex-matched littermates. N=20 each, bars = standard deviation, paired *t*-test.

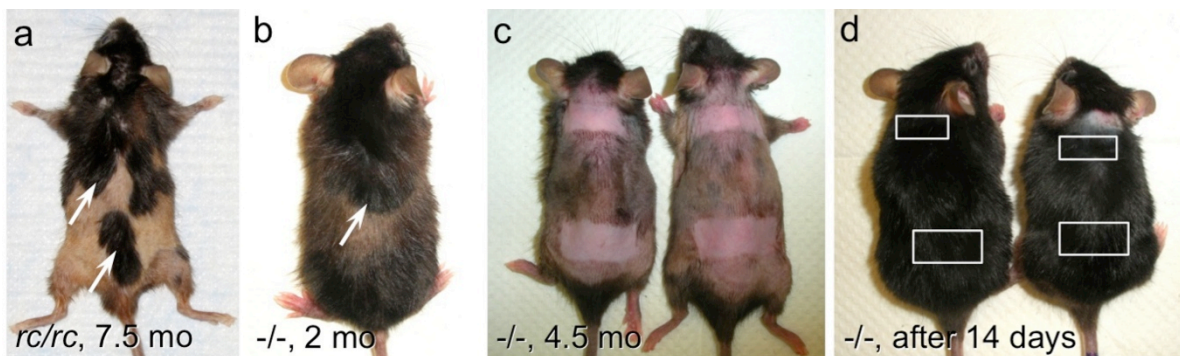


Figure S5. Spontaneous (a, b) and induced (c, d) regrowth of pigmented hair in *rc/rc* (a) and *Mpz13* *-/-* (b~d) mice with patches of vellus-like hair. Arrows point to newly regrown hair (a, b).

Table S1. PCR primer sequences.

	Forward Primer	Reverse Primer	Amplicon (bp)
For genotyping:			
Wild type <i>Mpz13</i> allele	GGGCACATTCCGAGACCG	AGCATGAGAAGAGACTGGCA	206
<i>Mpz13</i> <i>rc</i> allele	CGGGCACATTCCGAGACCA	AGCATGAGAAGAGACTGGCA	206
<i>Mpz13</i> knockout allele (neo)	AGCTGTGCTCGACGTTGTAC	GATCATCCTGATCGACAAGAC	239
For RT-PCR:			
GAPDH	AGAACATCATCCCTGCATCC	CTGTTGAAGTCGCAGGAGAC	253
<i>Mpz13</i> F1-R1	AAGCTGACCATAGACTGGAC	ACGAAGACGAGGATGGAGAG	317
<i>Mpz13</i> F2-R2	CGTCCATCAGTATCAGCAAC	ACGAAGACGAGGATGGAGAG	172