

**THE PHENOTYPIC EFFECTS OF THE M-1 MUTATION SUGGEST A  
NEW KITL ALLELE**

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The *Kitl* (Kit ligand called also *Mgf* or *Steel*) plays a critical role in the development of hematopoietic and germ cells and neural crest-derived melanocytes. It is also involved in the spermatogenetic process. Mutations of this gene are usually semidominant and cause coat colour dilution. Homozygotes are often severely anaemic and sterile.

The *m-1* mutation in the C3H.BN/W mouse strain was observed. It was shown that the described mutation is semidominant. Mice carrying this mutation have a diluted coat colour. Both sexes are fertile. Neither lethal nor vitality-decreasing effects were detected. Our earlier investigations indicated that the *m-1* mutation is closely linked to the D10Mit134 and D10Mit12 markers located in the neighbourhood of the *Kitl* gene, suggesting that the *m-1* mutation is a new allele of the *Kitl* locus.

In order to estimate the phenotypic effects of *m-1* mutation, C3H.BN-*m1* × DBA/2 crosses were bred. Mice from the F2 generation, homozygous for the *m-1* mutation, have a lower count of erythrocytes than animals without the mutation. Besides this, a significant decrease of testis weight in males carrying the *m-1* mutation was detected.