ABSTRACT OF THE DISCLOSURE

SYSTEMS AND METHODS FOR PREDICTING SPECIFIC GENETIC LOCI THAT AFFECT PHENOTYPIC TRAITS

A database of genetic variations is analyzed to produce a haplotype map of the genome for strains of a single species. A computational method is used to rapidly map complex phenotypes onto the haplotype blocks within the haplotype map. The specific genetic locus regulating three different biologically important phenotypic traits in mice is identified using these systems and methods.

Fig. 2