

F101

Variation and Expression of the Apolipoprotein B Gene in *Rattus norvegicus*

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Apolipoprotein B (apoB) occupies a central role in plasma lipid transport. The present study aims to identify the genetic variation and tissue-specific expression of the apoB gene in *Rattus norvegicus*. Primer extension analysis after RT-PCR was performed. Insertion (I) and deletion (D) polymorphism showed higher frequency in the I allele compared to D allele. In contrast to human, apoB exhibited mRNA editing pattern in liver and intestine of rat. Editing ratio was higher in the intestine than that of the liver. Thus, these results may provide some useful informations on genetic structure of wild rat.

F102

Genetic Variations of ACE and AGN Genes in *Rattus norvegicus*

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The renin-angiotensin system (RAS) may be involved in the pathogenesis of cardiovascular disease by regulating blood pressure. This study reports genetic variations of RAS' component genes identified in the wild rat. Insertion (I) and deletion (D) polymorphism of the angiotensin-converting enzyme (ACE) gene had higher values in the I allele than that of D. The angiotensinogen (AGN) gene analyzed by single strand conformational polymorphism (SSCP) was a polymorphic. The addition of the variations of the ACE and AGN genes to the polymorphism loci is a further step toward a better identification of this species. Thus, the genetic variations of the ACE and AGN genes in *Rattus norvegicus* may be useful for understanding the genetic information of rat.