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Investigation of Single Nucleotide Polymorphisms in Porcine A-FABP, E-FABP Genes and Its Association with Carcass and Back Fat Traits

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Several studies reported two genes adipocyte fatty-acid binding protein (FABP4), epidermal fatty-acid binding protein (FABP5) for growth, carcass and meat quality traits on porcine chromosome 4. We resequenced 6.3 kb of the FABP4 gene and 5.2 kb of the FABP5 gene in Berkshire, Landrace, Yorkshire, Berkshire, Korean native pig x Yorkshire. 46 SNPs were in 22 PCR products producing an average of one SNP in every 299bp. PCR restriction fragment length polymorphism (RFLP) assays were developed for 8 SNPs and used to investigate allele frequencies in five commercial pig breeds in Korea. The SNP markers were used to FAT 1 region candidate genes in QTL and to clarify the relevance of SNP and quantitative traits.

Key words: Pig Breed, single nucleotide polymorphism, carcass

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Effect of Water Extract of *Allium sativum* L. on the Recovery of Exercise-induced Fatigue

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To study the effect of water extract of aged garlic (*Allium sativum* L.) on the recovery of exercise induced fatigue, we investigated amount changes of lactate, LDH, total cholesterol, HDL-cholesterol, LDL-cholesterol, glucose, triglyceride, FFA as metabolic substrate in the serum and plasma of rats. Garlic was aged under 95-98% moisture and 50-75°C for 15 days. Aged garlic turned into black color. Water extract of aged garlic was lyophilized, reconstituted in PBS and orally administered to rats for five days once a day at variable concentrations. Blood of rats were obtained at 120 minutes after maximum swimming by cardiac puncture under to analyze the above blood biochemical markers. Control groups of rat were treated in the same way except only PBS administration. Levels of most blood biochemical markers were decreased in the group of aged garlic administrated-rats when compared with the groups of PBS administrated-rats. Therefore, aged garlic appeared to have fatigue recovery function when one has drunk for a period of time.

Key words: Aged garlic, *Allium sativum* L., Exercise, LDH, Lactate