F827 An *Rsa* I Polymorphism for the 3'Untranslated Region of the Fibrillin-1(*FBN1*) gene in Korean

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FBN1 on chromosome 15q21.1 is a major component of extracellular-matrix microfibrils. It contains 65 exons encoding a multidomain and highly repetitive protein such as multiple epidermal growth factor (EGF)-like motifs (most of which can bind calcium) and transforming growth factor-β1 (TGF-β1) binding protein-like motifs. Mutations in the *FBN1* gene have been found to cause Marfan syndrome (MFS), an autosomal dominant disorder with a connective tissue disorder affecting skeletal, ocular, and cardiovascular complications. And the mutations in MFS have been observed along the entire length of the *FBN1* mRNA. In this study, we analyzed the 3'UTR (at nucleotide 6236) of the *FBN1* by PCR-*Rsa* I RFLP method from 299 unrelated healthy Korean . The genotype frequencies of *FBN1*A1/FBN1*A1*, *FBN1*A1 /FBN1*A2*, and *FBN1*A2/FBN1*A2* in Korean were 31.4%, 46.8%, and 21.8% and the allele frequencies of *FBN1*A1* and *FBN1*A2* were 0.55 and 0.45, respectively. The allele frequency of *FBN1*A1* (0.55) in Korean is lower than that of Caucasians (0.78).

F828 Cloning and Expression of Osmotin Gene in response to Wounding and Jasmonic Acid in *Petunia hybrida*

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Osmotin is an abundant cationic protein and its name was applied because of the positive correlation between the accumulation of the protein and the cell osmotic potential. We identified and characterized the gene encoding osmotin from a cDNA library which is constructed from 3 to 5 day old petunia (*Petunia hybrida*) petal protoplast cultures. This clone, designed as *PhOSM* (*Petunia hybrida OSMOTIN*), presented 741 bp open reading frame encoding for a 26 KD polypeptide of 246 amino acid residues; including the putative N-terminal and C-terminal signal peptide sequence. Comparative alignment revealed extensive homologies to osmotin and the osmotin-like protein from tobacco, potato, and Arabidopsis. *PhOSM* mRNA was found to be most abundant in the root, and it was little in leaf, stem, and pistil. *PhOSM* mRNA was induced by various stresses, such as NaCl, ABA, salicylate, and low temperature. Furthermore, it was significantly induced by wounding in the leaves whereas no in systematic leaves. Jasmonic acid, signaling molecule of the plant response to wounding and pathogen attack, induced the expression of *PhOSM* mRNA. Linolenic acid, the precursor of jasmonic acid in the oxylipin pathway, also induced expression of *PhOSM* mRNA. To further understand mechanisms of wound-induced gene expression, we speculated that wounding signal affects biosynthesis pathway of jasmonic acid and this signal is required for *PhOSM* espression.