

## Allele and genotype frequencies of CYP2B6 in Korean population

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**Objective:** Human CYP2B6 is an important enzyme involved in the metabolic process of therapeutically significant drugs such as cyclophosphamide, bupropion, tamoxifen, and diazepam. In this study, we determined the frequencies of allelic variants and genotypes of CYP2B6 in Korean population.

**Methods:** Genomic DNA was isolated from 200 healthy Korean subjects. Detection of the CYP2B6 genotype was performed by polymerase chain reaction and restriction fragment length polymorphism assays.

**Results:** Five allelic variants (CYP2B6\*2, \*4, \*5, \*6, and \*7) were found in Korean population. The allele frequencies were 3.2% for CYP2B6\*2 (C64T), 4.5% for CYP2B6\*4 (A785G), 0.3% for CYP2B6\*5 (C1459T), 13.5% for CYP2B6\*6 (G516T and A785G), and 0.7% for CYP2B6\*7 (G516T, A785G and C1459T). No subject with CYP2B6\*3 (C777A) allele was found. The 1459C>T mutation included in both CYP2B6\*5 and \*7 alleles was identified in four Korean subjects (1.0%) relative to 14% in Caucasians.

**Conclusions:** These results will not only provide information for a performance of the future clinical studies on CYP2B6-metabolized drugs in Korean, but also contribute to a better understanding of the molecular basis of ethnic differences in drug response.