

[P-61]**The Evaluation of Genotoxicity of CJ-11668 and CJ-11555 Using SOS Chromotest**

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The evaluation of genotoxic potentials of new molecules is very important in early drug development step. SOS chromotest is a short-term assay for the identification of *sfhA* gene inducing DNA damage caused by chemical compounds in strain *Escherichia coli*(*E. coli*) PQ37. It is known that the concordance between SOS chromotest and Ames test is about 80%. First of all, we performed SOS chromotest with 6 Ames-positive mutagens, 9-amino-acridine-HCl, Benzo[a]pyrene, N-Ethyl-N'-nitro-N-nitrosoguanidine, 4-nitroquinoline- 1-oxide, Methyl methanesulfonate and Mitomycin C to know whether it could detect positive mutagen. 6 chemicals induced SOS response in a dose-dependent and the result showed a good correlation with Ames test. Based on these results, we performed SOS chromotest and Ames test with CJ-11668 and CJ-11555 selected as new drug candidates of COX II inhibitor and anti-cirrhotic agent. As CJ-11668 did not induce SOS response and reverse mutation in Ames test and CJ-11555 slightly induced SOS response at the highest dose and increased the number colony of TA 1535 strain with S9 mixture. The SOS chromotest has been shown to correlate well with the Ames test. Even if CJ-11555 increased the number of colonies of TA1535 strain with S9 mixture 2 fold comparing control in Ames test, it was not dose-independent and the increased number of colony belonged to negative historical range. Therefore, SOS-inducing activity of CJ-11555 might be false positive. In conclusion, SOS chromotest is useful screening assay system in early drug discovery and CJ-11668 and CJ-11555 is not mutagenic through SOS chromotest and Ames test.

Keyword: SOS chromotest, Mutagen, Genotoxicity, COX II inhibitor, anti-cirrhotic agent