

[PC3-8] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

Characterization of Immortalized Hepatic Stellate Cell Line

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PURPOSE: Hepatic stellate cells (HSCs) are now known to play central roles in hepatic fibrosis, but primary HSCs isolation is time-consuming, yield are modest, and they have a limited lifespan in vitro. To overcome these defects, we developed and characterized an immortalized hepatic stellate cell line. **METHODS:** Immortalized hepatic stellate cell line was established by transformation with simian virus 40. We investigated their growth, expression of TGF-beta, collagen type I (COL-I) and smooth muscle alpha actin (alpha-SMA) and NF-kappa B induction using electrophoretic mobility shift assay. **RESULTS:** Morphology of immortalized HSCs was not changed. The growth of immortalized HSCs was dependent on serum concentration, which showed apoptosis in 36 hours in serum-free condition. The immortalized HSCs expressed high level of COL-I and alpha-SMA and expressed COL-I and TGF-beta mRNAs. Some drugs such as curcumin and pentoxifylline inhibited the production of COL-I and NF-kappaB induction. NF-kappa B was induced in the nucleus when the immortalized HSC was stimulated by serum, TNF-alpha and IL-1 beta but not PDGF-BB, TGF-beta and IFN-gamma. **CONCLUSIONS:** We suggest that the immortalized HSCs could be useful tool to study hepatic fibrosis.

[PD1-1] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Study on the Stability of Carbocation by CSI reaction with Ethers

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Of all reaction intermediates, the carbocation holds a paramount position as the first to be extensively studied and perhaps the most widely understood and harnessed in organic synthesis. Thus, the stability of carbocations have been studied by many chemists. The methods for the study can be divided into two large categories: the determination of accurate values for the heats of formation of carbocations in the gas phase, and the study of correlation between relative solvolysis rate constants in solvent and the competition constant in the presence of nucleophile. Already, we developed synthetic method for N-protected allylic amines from allyl ethers using chlorosulfonyl isocyanate(CSI) via the stable allylic carbocation. In this presentation, we will report the stability order of carbocations by the simple CSI reaction which we developed with various allyl ethers and benzyl ethers. As one of our results, the reaction of p-methoxycinnamyl p-methoxybenzyl ether with CSI afforded p-methoxybenzyl N-(p-methoxycinnamyl)carbamate and p-methoxycinnamyl N-(p-methoxybenzyl)carbamate in a 4 : 1 ratio, on the other hand, cinnamyl p-methoxybenzyl ether afforded only cinnamyl N-(p-methoxybenzyl)carbamate. This result show us stability order of carbocation: p-methoxycinnamyl > p-methoxybenzyl > cinnamyl carbocation.

[PD1-2] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Inhibitory Effect of 2-Hydroxychalcones on Rat Lens Aldose Reductase and Rat Platelet Aggregation

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