Synthesis of Novel Antimitotic Compounds

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Abstract :

Recently, mitotic kinesins have gained significant attention as new targets for cancer therapy-agents that inhibit the function of kinesins specifically could have reduced side effects and lower drug resistance compared with microtubule targeting drugs. Inhibition of Eg5 represents a novel approach for the treatment of cancer.
Here, we report the synthesis of antimitotic agents that have structures related to S-trityl-L-cysteine and cysteamine. The target compounds were synthesized by couplings an in house synthesized tertiary alcohol with the cysteine or cysteamine. We successfully synthesized a library of compounds and were identified by the available techniques like IR. The synthesized compounds is now under testing for its anti cancer activity. The synthesized compounds will be tested for other bioactivities including the antimicrobial and the anti-inflammatory.