Design and synthesis of novel benzothiophene and dibenzothiophene derivatives and their biological properties

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Heteroaromatics and their derivatives have very critical roles in discovery and development of new drug candidates due to their biological and pharmacological properties (1). Benzothiophenes, dibenzothiophenes and thiophenes are the well known member of heteroaromatic compounds and used in pharmaceuticals such as Raloxifene (2) Zileuton (3) Sertaconazole (4) They have been also used as anti-parasitic, anti-bacterial, anti-cancer, anti-fungal, anti-inflammatory and anti-oxidant drugs (5). In the present study, novel benzothiophene and dibenzothiophene derivatives were synthesized regioselectively by using coupling reactions and electrophilic cyclization reactions. In addition, antimicrobial properties of isolated compounds were tested against indicator microorganisms, and antioxidant capacity of benzothiophenes were investigated. The detail results will be presented at meeting.

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