

ABSTRACT

Sulfonamides are considered as the antibacterial agents. Many types of sulfonamides have been prepared at present but only a few are used as drugs against different types of bacteria. The main work described here is the synthesis of parent compound *N*-methyl-*N*-(4-hydroxyphenyl)-4-methylbenzenesulfonamide from metol (planetol or *p*-methylamino phenol) and tosyl chloride (or Toluene-4-sulphonyl chloride). Further the parent compound was treated with different alkyl halides and aromatic carbonyl halides to produce butyl, pentyl, methyl, ethyl and benzoyl derivatives. These synthesized compounds were also screened against different enzymes like Acetylcholinesterase, Butyrylcholinesterase and Lipoxygenase to evaluate their biological activities. The synthesized compounds showed good inhibition against Lipoxygenase enzyme.