

ABSTRACT

A series of *N*-alkyl substituted sulfonamide and dibromo-sulfonamide derivatives has been synthesized. The reaction of tosyl chloride and 2-methoxyphenylamine (*o*-anisidine) yielded, *N*-(2-methoxyphenyl)-4-methylbenzenesulfonamide which on further treatment with sodium hydride/lithium hydride and different alkyl halides furnished into a series of new derivative . These derivatives were characterized by ¹H-NMR and EI-MS and then screened against acetylcholinesterase, butylcholinesterase, lipoxygenase, β -glucuronidase and it was found that all derivatives showed different biological activity against different enzymes depending on their structures.