Abstract

The purpose of this research work was to synthesize compounds 3-{[5-(3/4-aminophenyl)-1,3,4-oxadiazol-2-yl]sulfanyl}s-*N*-(5-methyl-1,3-thiazol-2-yl)propanamides **(8a & 8b)**. After the synthesis, the alkaline phosphatase inhibition and hemolytic activity of newly synthesized compounds were determined. This reaction involved multi-steps, in first step 3-Bromo-*N*-(5-methyl-1,3-thiazol-2-yl)propanamide (**3**) was prepared from 5-methyl-1,3-thiazol-2-amine (**1**). In the next step 4-benzoic acid (**4**) was converted into 4-amino phenyl acetate (**5a & 5b**) by refluxing with EtOH. Then **5a & 5b** was converted into 4-aminophenylhydrazide (**6a & 6b**) by refluxing with N_2H_4. After this, hydrazide converted into 5-(3/4-Aminophenyl)-1,3,4-oxadiazole-2-thiol (**7a**/**7b**). The compound **8a & 8b** was prepared by coupling **3** and **(7a & 7b)**. The structures of compounds **8a & 8b** ware determined by using ^{1}H-NMR and ^{13}C-NMR analytical techniques. The alkaline phosphatase inhibition and haemolytic activity were examined against the KH_2PO_4 and Triton X respectively.