

## ABSTRACT

The piperine is an alkaloid; the mainly synthesized in plant *Piper nigrum*. The antimicrobial activities of this plant are already reported and considered to be because of piperidine ring.

In this study we synthesize different derivatives of plant metabolite after removing this piperidine ring and investigate the antimicrobial, antioxidant and haemolytic activities of different esters and acid chloride that were prepared from piperic acid. These derivatives were purified through chromatographic techniques and characterized by I.R. and <sup>1</sup>H NMR Spectroscopic techniques.

We prepared seven derivatives that are methyl piperate (1), ethyl piperate (2), *iso*-propyl piperate (3), *n*-butyl piperate (4), amyl piperate (5), phenyl ethyl piperate (6), piperoyl chloride (7).

Among these synthesized products methyl piperate (1) and ethyl piperate (2) showed the better antimicrobial activity, amyl piperate (5) showed strong antioxidant activity while butyl piperate (4) showed the highest haemolytic activity among all the other synthesized derivatives.