

## Chemical constituents study of Umm glagil ( *Aristolochia bracteolata*) and antibacterial activity against *Salmonella typhi*

Ashwag Ahmed Abdelrahman Mohamed Nour<sup>1</sup>, Walaa-Aldeen Hamad Na Alla  
Ahmed<sup>2</sup> and Salah Ahmed Mustafa<sup>1</sup>

1Department of biotechnology, faculty of agriculture (abonaama) ,University of Sinnar , Sudan

2 Department of Biology , faculty of education , University of Alfashir , Sudan.

Corresponding author: longingshr@yahoo.com

**Received : 2. Oct. 2025**

**Accepted :1. Nov. 2025**

**Published : 23. Nov. 2025**

### Abstract

(*Aristolochia bracteolata*) is widespread used herb in African countries including Sudan. It is as one of the most effective plant for remedies of infectious diseases. The aim of the present study is to investigate the secondary metabolites of Umm glagil (*Aristolochia bracteolata*) in the root and different parts of shoot system such as leave , stems and bark, as well as to study of biological activity as antibacterial against important pathogenic bacteria (*Salmonella typhi*). Different solvents system and aqueous extracts with different concentration (50g/500/ml) and (0.00, 25.0, 50.0, 75.0 and 100 mg/ml) were used. Qualitative analysis were carried out to investigate phytochemical constituents of different parts then after, disc diffusion method (inhibition zone), was used to determinate the sensitivity of the bacteria to the extracts. The phytochemical analysis showed that the extracts of Umm glagil leaf and stem contained flavonoids at moderate concentration, while, flavonones/ flavonols and saponins recorded high concentration in stem. The Methanolic, ethyl acetate, ethanolic and petroleum ether extracts of Umm glagil were more effective against the bacteria than the other solvents giving (1.9, 1.7, 1.3, 1.2 cm) diameters, in order. This study indicated that Umm glagil can be used as antibacterial agents.

**Keywords:** *Aristolochiabracteolata*, *Salmonella typhi* , antibacterial , Umm glagil , phytochemical.