

عنوان مقاله:

Preparation of new mefenamic acid compounds and evaluation the biological activities of their derivatives

محل انتشار:

مجله علوم زیستی خاورمیانه، دوره 22، شماره 1 (سال: 1403)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Aseel Fadhil Kareem - College of Pharmacy, University of Babylon, Iraq

Samah Ahmed Kadhum - College of Pharmacy, University of Babylon, Iraq

Amal Talib AlSa'ady - College of Pharmacy, University of Babylon, Iraq

خلاصه مقاله:

Ponstane Fort, a famous pharmaceutical drug has many medicinal uses. Recently, it has been used in different chemical reactions in order to improve its biological effectiveness. Three chemical compounds have been prepared as derivatives of Mefenamic acid by certain steps included adding thiosemicarbazide to Mefenamic acid with a catalyst of  $H_2SO_4$  to obtain a Mefenamic derivative  $C_1$ ; mixing a certain amount of  $C_1$  with 4-carboxybenzaldehyde to obtain compound  $C_2$ ; dissolving  $C_2$  at various reagents by diazotization reaction to yield Mefenamic derivative  $C_3$ . All formatted compounds had been monitored through FTIR-Spectra,  $^1H$ -NMR-Spectra, Mass-Spectra and melting point. This method has high target product productivity, simple process procedures, mild reaction conditions, simple purifying process, high product purity and suitability for industrialized production. So that the production cost is further reduced. By using the agar well diffusion method, all prepared three compounds showed good antibacterial activity against studied Gram-positive and Gram-negative bacteria, however,  $C_3$  showed the highest activity. A skin test for Delayed Hypersensitivity was done to know if there are allergic reactions for the created compounds, while the test for Killing Mice has been done for testing mortality rate in animals. The compounds have a high cellular immune response through in experimental animals

کلمات کلیدی:

Mefenamic acid, Thiadiazole, Schiff base, Hypersensitivity, Antibacterial Activity, Heterocyclic rings, Azo compounds

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/2004721>

