**Synthesis of novel phthalazine derivatives as pharmacological activities**

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**Abstract**

Phthalazine derivatives attached to amino acid derivatives were synthesized with high yields. Which, reacted of phthalazine derivatives.with different of phthalyl and tosylamino.acids such as glycine, alanine, phenylalanine, valine, serine and threonine in the presence of of *N*,*N*-dicyclo hexylcarbodiimide (DCC) as a dehydrating agent reagent yielded high yields of the afforded compounds. Phthalylamino acids derivatives were obtained by deprotection of phthalazine derivatives which the latter heating with hydrazine hydrate. The chemical structures of all phthalazine derivatives were affirmed by elemental analysis and spectral data (IR, MS, 1HNMR, 13C NMR). Screening.out and estimation.of the synthesized derivatives for their cytotoxic and antioxidant activity were done, most of them showed powerful activity in comparison with standard drugs.

Keywords: Phthalazine; Phthalyl amino acids; Tosylamino acids; Antitumor; Antioxidant; DNA