



**International Journal of ChemTech Research**  
CODEN(USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555  
Vol.10 No.3, pp604-612,2017

## Synthesis, Characterization, and Antibacterial Activity of some Amino Acid Derivatives

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**Abstract :** The present work includes the synthesis of glycine and L-amino acid derivatives **6-10 (A,B)** via Schiff's bases **3(A,B)**, which were obtained from the reaction of 2-aminopyridine **2** with benzaldehyde **1A** or 4-chlorobenzaldehyde **1B**. The reaction of **3(A,B)** with benzoyl chloride yielded benzamide derivatives **5(A,B)**. The synthesis of **6-10 (A,B)** has been performed by the reaction of **5(A,B)** with (glycine, L-alanine, L-phenylalanine, L-aspartic acid and L-asparagine). Infrared and nuclear magnetic spectroscopic techniques FT-IR, <sup>1</sup>H NMR, and <sup>13</sup>C NMR were used to characterize the newly synthesized compounds. The antibacterial activity of final products has been evaluated against two kinds of Gram positive and Gram negative bacteria (*Staphylococcus aureus* and *Klebsiella pneumonia*). Overall, results indicate a lower and moderate antibacterial activity in comparison with Meropenem as a reference against both bacteria. The highest activity was obtained using the compound **7B** for both kinds of bacteria and **6A** for only *Klebsiella pneumonia*.

**Keywords :** Schiff's bases, 2-Aminopyridine, L-Amino acids, Antibacterial activity, Benzamide

JawadKadhumShneine *et al*/International Journal of ChemTech Research, 2017,10(3): 604-612.

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