Gaber O. Moustafa

National Research Centre, Cairo, Egypt.

Synthesis, Molecular Characterization and Anticancer Activity of New Synthetic Cyclic Peptide Derivatives

Our interest in the design, synthesis and biological investigations of peptides is, progressively, reported [1-10]. Herein, the search for potent biological agents presents and updated area of the organo-biochemical literature. Herein, Nα-1, 3-benzenedicarbonyl linear peptide candidates, has the structure: Nα-1, 3-benzenedicarbonyl-bis-(Amino acids)-X. On the other hand, Nα-benzendicarbonyl bridged cylco-penta-peptides, having the structure: Cyclo-[Nα- benzendicarbonyl- bis-(dipeptide)-L-Lys]-Y. Variable synthetic coupling methods, in solution, as well as experimental reaction conditions, were experimented. The candidates were, chromatographically purified and spectroscopically characterized. A preliminary cytotoxicity evaluation, against eight human cancer cell lines was realized (National Cancer Institute, EGYPT). The detailed cytotoxic and hepato-toxic results, compared to those of five common anticancer drugs and their biochemical assays, particularly, as histone deacetylase inhibitors, are currently in progress. Structure activity relationships were outlined and suggested prospective were proposed.

Biography

Gaber O. Moustafa has completed his PhD (Organic Chemistry) May, 2014, from chemistry Dept, faculty of science, Banha University, Egypt, and he has the best Doctoral Thesis 2014 in the field of chemical sciences and their applications award by the National Research Centre, and postdoctoral studies from Rennes University (France). He has published 40 papers, now he work as associate professor in peptide chemistry dept., National Research Centre, Cairo, Egypt.

gosman79@gmail.com

Received: August 22, 2022; **Accepted:** August 24, 2022; **Published:** September 16, 2022