SYNTHESIS AND CYTOTOXIC ACTIVITY OF VARIOUS ALKYL 2-{DI[(DIETHOXY PHOSPHORYL) METHYL]AMINO}ESTER DERIVATIVES

C. Bhupendra Reddy,1 N. Bakthavatchala Reddy,2 C. Naga Raju1*

1Department of Chemistry, Sri Venkateswara University, Tirupati-517 502, Andhra Pradesh, India.
2Ural Federal University, Chemical Engineering Institute Yekaterinburg, 620002, Russian Federation.
*Corresponding author, E-mail: rajuchamarthi10@gmail.com

Abstract. We have been synthesized simple, efficient various alkyl 2-{di[(diethoxy phosphoryl) methyl]amino}ester derivatives by reacting amino acid esters 1(a-j), paraformaldehyde and two molar equivalents of diethyl hydrogenphosphonate (2) in tetrahydrofuran at 55–65 °C for 10 hrs. All the compounds 3(a-j) were assessed for cytotoxicity against some important types of human chronic myeloid leukemia cells (K-562) and human colon carcinoma cells (Colo-205) along with non cancerous human embryonic kidney cells (HEK-293).