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Título	Synthesis of a Tyr-Tyr Dipeptide Library and Evaluation Against Tumor Cells
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Resumo	Background: Structural component of proteins and peptides, amino acids have been used as building blocks in the synthesis of more complex molecules with antitumor activity against several types of cancer. Objective: The search for new anticancer compounds is ongoing, especially for cancers that are very aggressive and have poor prognoses, such as leukemia. Method: Here, we report a method to synthesize Tyr-Tyr dipeptides via sonochemistry reactions followed by functionalization of these Tyr-Tyr dipeptides with Suzuki-Miyaura and Sonogashira crosscoupling reactions in good yields. Twelve different Tyr-Tyr dipeptides were investigated against three cell lines: HaCaT; Jurkat-E6; and A2058. Results: Some of the Tyr-Tyr dipeptides showed activity against Jurkat-E6 leukaemia cells at low concentration, decreasing their viability, but not against non-tumor HaCaT cells, suggesting a cytotoxicity specific to tumor cells. Conclusion: All dipeptides were able to decrease the viability of Jurkat cell line, however the A2058 cell line did not respond well to treatment with the peptides. Some of the modified Tyr-Tyr dipeptides presented selective activity on leukemic tumor cells.
Fomento	