



Identification of triazole bridged amino acids appended indoles as dual inhibitors of 5-LOX and COX-2 enzymes

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Abstract : A new set of compounds containing indole nucleus appended with carefully selected amino acids via a triazole linker are identified. These compounds are found to be effective against the enzymes responsible for inflammation. The in-vitro enzyme immunoassay studies on the test compounds indicated substantial activities which become amplified for the compounds with free carboxyl group. The kinetic experiments indicated favourable enzyme-drug interactions with 1:1 stoichiometry being the most favoured. The in vivo experiments on these compounds indicated the acceptable limits of toxicity compared to the control. All these findings were in close coordination with the docking investigations.

Keywords : 5LOX – 5lipxygenase, COX-1/2 – cyclooxygenase $\frac{1}{2}$, MIC₈₀ - minimum inhibitory concentration for 80% inhibition, ITC – isothermal titration calorimetry.

Parteek Prasher /International Journal of ChemTech Research, 2016,9(7),pp 453-465.
