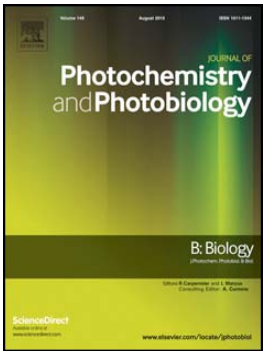

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PII: S1011-1344(16)30351-7
DOI: doi: 10.1016/j.jphotobiol.2016.06.036
Reference: JPB 10442

To appear in:

Received date: 8 May 2016
Revised date: 11 June 2016
Accepted date: 22 June 2016

Please cite this article as: K. Hemalatha, G. Madhumitha, Naif Abdullah Al-Dhabi, Mariadhas Valan Arasu, Importance of fluorine in 2, 3-Dihydroquinazolinone and its interaction study with lysozyme, (2016), doi: 10.1016/j.jphotobiol.2016.06.036

Importance of fluorine in 2, 3-Dihydroquinazolinone and its interaction study with lysozyme

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ABSTRACT

The main aim of this study is to investigate the interaction of 7- fluoro- 2, 2-dimethyl- 2, 3- dihydroquinazolin- 4(1*H)*- one with lysozyme through various spectrophotometric studies. The graph such as Stern-Volmer plot, modified Stern Volmer plot, double logarithmic plot and Van't Hoff plot were plotted to determine the various parameters essential for predicting the interaction. The interaction of the ligand with the protein was further confirmed by circular dichroism and NMR study. The molecular docking was performed and the results obtained were correlated with the other studies. The importance of fluorine was justified through the prediction of pK_a values and the possible metabolic pathway using the *insilico* tools. In addition, the cytotoxicity of the compound was carried out using HeLa cancer cell.

Keywords: Dihydroquinazolinone, lysozyme, interaction, fluorescence, spectrophotometry, metabolism