Accepted Manuscript

Flurbiprofen Derivatives as Novel α -Amylase Inhibitors: Biology-Oriented Drug Synthesis (BIODS), In Vitro, and In Silico Evaluation

Momin Khan, Aftab Alam, Khalid Mohammed Khan, Uzma Salar, Sridevi Chigurupati, Abdul Wadood, Farman Ali, Jahidul Islam Mohammad, Muhammad Riaz, Shahnaz Perveen

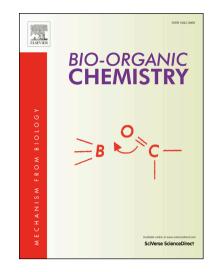
PII: S0045-2068(18)30382-1

DOI: https://doi.org/10.1016/j.bioorg.2018.07.038

Reference: YBIOO 2457

To appear in: Bioorganic Chemistry

Received Date: 20 April 2018 Revised Date: 11 July 2018 Accepted Date: 31 July 2018



Please cite this article as: M. Khan, A. Alam, K. Mohammed Khan, U. Salar, S. Chigurupati, A. Wadood, F. Ali, J. Islam Mohammad, M. Riaz, S. Perveen, Flurbiprofen Derivatives as Novel α-Amylase Inhibitors: Biology-Oriented Drug Synthesis (BIODS), In Vitro, and In Silico Evaluation, *Bioorganic Chemistry* (2018), doi: https://doi.org/10.1016/j.bioorg.2018.07.038

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Flurbiprofen Derivatives as Novel α-Amylase Inhibitors: Biology-Oriented Drug Synthesis (BIODS), In Vitro, and In Silico Evaluation

Momin Khan,*a Aftab Alam,a Khalid Mohammed Khan,*b,c Uzma Salar,b Sridevi Chigurupati,d Abdul Wadood,e Farman Ali,b Jahidul Islam Mohammad,f Muhammad Riaz,e Shahnaz Perveeng

^aDepartment of Chemistry, Abdul Wali Khan University, Mardan-23200, Pakistan ^bH. E. J. Research Institute of Chemistry, International Center for Chemical and Biological Sciences, University of Karachi, Karachi-75270, Pakistan

Highlights:

- Novel derivatives of flurbiprofen 1-18 were synthesized and structurally characterized.
- \triangleright Compounds were evaluated for *in vitro* α -amylase inhibitory activity.
- Limited structure-activity relationship (SAR) was established.
- Molecular docking study was also performed on all compounds.

^cDepartment of Clinical Pharmacy, Institute for Research and Medical Consultations (IRMC), Imam Abdulrahman Bin Faisal University, P.O. Box 1982, Dammam 31441, Saudi Arabia.

^dDepartment of Pharmaceutical chemistry, Faculty of Pharmacy, AIMST University, Semeling, 08100 Bedong, Kedah, Malaysia

^eDepartment of Biochemistry, Computational Medicinal Chemistry Laboratory, UCSS, Abdul Wali Khan University, Mardan, Pakistan

^fDepartment of Pharmacology, Faculty of Medicine, Cyberjaya University College of Medical Sciences, CUCMS, Cyberjaya, 63000, Malaysia

⁸PCSIR Laboratories Complex, Karachi, Shahrah-e-Dr. Salimuzzaman Siddiqui, Karachi-75280, Pakistan

^{*}Corresponding Authors: mominkhan@awkum.edu.pk; mominhej@yahoo.com; Tel. 0092937929122; Fax. 0092937542188; khalid.khan@iccs.edu; drkhalidhej@gmail.com; Tel. +922134824910

Download English Version:

https://daneshyari.com/en/article/7770727

Download Persian Version:

https://daneshyari.com/article/7770727

<u>Daneshyari.com</u>