



NOVEL HALOGENS SUBSTITUTED COUMARIN-ALDEHYDE AS AN ANTI-INFLAMMATORY AGENT

Himanshu Joshi¹, B. K. Singh², Gyanendra Saxena¹, Vikas Singh¹, Rahul Pratap Singh¹,
Ekta Arya¹

¹Faculty of pharmacy, Naraina Vidya Peeth group of institutions, panki, Kanpur, India

²Department of Pharmaceutical Sciences, Bhimtal campus, Kumaun University, Nainital, India.

Article Received on
08 March 2013,

Revised on 22 April 2013,
Accepted on 27 May 2013

***Correspondence for
Author:**

*** Himanshu Joshi**

Faculty of pharmacy, Naraina
Vidya Peeth group of
institutions, panki, Kanpur,
India.

hijoshi1234@gmail.com

ABSTRACT

Coumarins have a long history of having number of pharmacological activities such as anticoagulant, antithrombotic, antimutagenic, vasodilator, LOX and CLOX inhibitors. The recent success of coumarins as anticoagulant has further highlighted the importance of this class in medicinal chemistry. Systematic investigation of this class of compound revealed that coumarin derivatives containing pharmacophore agent plays an important role in medicinal chemistry. Anti-inflammatory activity against Carragenan induced inflammation, Indomethacin as a standard. As literature survey shows that, Schiff bases too have anti-inflammatory this promoted to us to synthesize new derivatives of coumarins. The compounds were found to have significant anti-inflammatory activity. The observed Schiff bases of 4-

chloro-(3-substituted-phenylimino)-methyl-coumarin as anticoagulant activities are attributed to the substitution of 2-chloro, 2,6-dichloro, 2-fluoro and 4-fluoro group at phenylimino ring of synthesized compounds. These substitutions showed more significant activities than 4-hydroxy coumarin. Obviously, the comparative evaluation of active compounds will require further studies; the data reported in this work may be helpful guide for the medicinal chemist who is working in this area.

Key Words: Anti-inflammatory, LOX inhibitors, Coumarin, Indomethacin, Carragenan