Molbank **2010**, M666; doi:10.3390/M666

OPEN ACCESS

molbank

ISSN 1422-8599

www.mdpi.com/journal/molbank

Short Note

5-[(3,5-Dimethyl-1-phenyl-1*H*-pyrazol-4-yl)methylene]-1,3-diethyl-2-thioxodihydropyrimidine-4,6(1*H*,5*H*)-dione

Abdullah Mohamed Asiri [1,2,*] and Salman A. Khan [1]

[1] Chemistry Department, Faculty of Science, King Abdul Aziz University, P.O. Box 80203, Jeddah 21413, Saudi Arabia

[2] The Center of Excellence for Advanced Materials, King Abdul Aziz University, Jeddah 21589, P.O. Box 80203, Saudi Arabia

* Author to whom correspondence should be addressed; E-Mail: aasiri2@kau.edu.sa; Tel.: +966 2 569701362; Fax: +966 2 6952292.

Received: 1 March 2010 / Accepted: 16 March 2010 / Published: 17 March 2010

Abstract: The title compound, 5-[(3,5-dimethyl-1-phenyl-1*H*-pyrazol-4-yl)methylene]-1,3-diethyl-2-thioxodihydropyrimidine-4,6(1*H*,5*H*)-dione, has been synthesized by condensation of 1,3-diethyl-2-thiobarbituric acid and 3,5-dimethyl-1-phenylpyrazole-4-carbaldehyde in ethanol in the presence of pyridine. The structure of this new compound was confirmed by elemental analysis, IR, ^{1}H-NMR, ^{13}C-NMR and EI-MS spectral analysis.

Keywords: thiobarbituric acid; Knoevenagel condensation; pyridine

---

The Knoevenagel condensation of aldehydes with active methylene compounds is an important and widely employed method for donor-acceptor chromophore formation in organic synthesis [1] with numerous applications in the synthesis of fine chemicals such as photoelectronics [2], photophotonics, photodynamic therapy [3], electrochemical sensing [4], optical limiting [5], Langmuir film and photoinitiated polymerization [6]. The donor acceptor chromophores are also applicable in the field of biomedicinal chemistry. Due to the wide application of donor-acceptor chromophores, the authors have undertaken the synthesis of a novel donor-acceptor chromophore.