



SDI Review Form 1.6

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2014_IJBcRR_15784
Title of the Manuscript:	Kinetics For The Inhibition of Serum Acetylthiocholin Esterase Activity by Some New Phenobarbital Derivatives.
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	The main concern is the number of experimental points used in this paper to study kinetics. There is hardly any point which shows saturation. The curves are represented as sigmoidal rather than rectangular hyperbolic (Michaelis-Menten curves). Therefore, determination of kinetic parameters (K_m & V_{max}) is erroneous. There should be a minimum three replicates for each experiments with deviations shown in the figures and tables. Several other points are: Pages 1 & 2 Introduction – The contents in several places in the text are plagiarized from other articles and Wikipedia entries without proper citations. Page 3 Materials – What was the purity of the phenobarbital derivatives and how was it determined? Since it is proposed that the inhibition mechanism differs with respect to the compounds, presence of different species of derivatives in the mixture could significantly affect the results.	I have more one study on curoplasin oxidase, paraoxonase , glutathione reductase, lactate dehydrogenase in addition to AChE . I had many study in AChE that published and others under preparing that investigate other drug and prepared compound on enzyme by kinetic and thermodynamic study. Ire-draw it by using new version of excel. I change those paragraphs All these question you can have answered in refrence 17 .The derivatives was prepared and characterized using IR,UV, C.H.N ,AND TESTED IT BIOLOGICAL ACTIVITY TOWARD SOME TYPES OF BACTRIAS. I add the part that relate to the activity of enzyme in presence of DMSO only I FOUND THER



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	Page 3 Methods – The DMSO concentration in the solution is > 10%. Several reports (Watts & Hoogmead, Biochem. Pharmacol., 1984, 33, 365-369; Jagota, Indian J. Med. Res., 1992, 96, 275-278) have shown that DMSO inhibits AChE. Thus, the observed inhibition of AChE upon addition of the derivatives could in part be due to the effect of DMSO on AChE. Figures The results are poorly represented by the figures as labels and other important details are absent. Additionally, it seems improper to insert trend lines in these figures and to draw conclusions from them based on just a few experimental points. This is particularly evident in Figure 3 where the curves do not conform to the typical Michaelis-Menten curves. Thus, the values of K_m and V_{max} derived from Figure 3 are questionable. Table 2 & Table 4 Change in the values of K_m and V_{max} of enzymatic reactions in the presence of competitive, noncompetitive and uncompetitive inhibitor are well known. However, the results presented in Table 2 do not follow the type of inhibition listed in Table 4. Furthermore, how are the derivatives behaving as different types of inhibitors at different concentrations? Table 3 & Figure 4 How is the percentage of inhibition higher with lower concentrations of D?	WAS NO INHIBITION and these are proven as: 1.Dr.Fatin F. Al-Kazzaz*, Dr. Rehab A. M. Al-Hasani* & Zyzaffon N.* * Sensitivity of Serum Acetylcholine Esterase Toward Derivatives of Oxadiazole. Eng. & Tech. Journal, Vol.29, No.4, 2011 2.Jaffer H.J., Mahond M.J. and Al-Azzawi M.J., J. Biol. Sci. Res., (1988), 19, 793 . K_m and V_{max} was determined from lineweaver-Burck .I draw michale-menton to showed that the enzyme obey Michel equation in presence of inhibitors. I delet table 2 that cause a mistake. THIS is realy what I have it and I shall try to test smaller concentration of D than 10^{-10} on AChE .
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Minor REVISION comments	X	
Optional/General comments	Very poor write-up. Needs English language editing throughout the MS. 1. Paragraph 1 of Introduction is mostly copied from this page: http://en.wikipedia.org/wiki/Acetylcholinesterase under the 'Distribution' heading. Although they provided the citation, but it is more likely that they simply copied the reference cited in the Wikipedia page. 2. Paragraph 2 of Introduction is entirely copied from the introduction of this article: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2034337/ 3. Paragraph 3 of Introduction is partly copied from this page: http://en.wikipedia.org/wiki/Acetylcholinesterase_inhibitor under the 'Examples' heading. 4. The contents of Paragraph 4 of Introduction are taken from this page: http://en.wikipedia.org/wiki/Phenobarbital (beginning of article). But they rephrased some of the sentences.	I change all weak paragraphs and these references too.