

## Supporting information file

for

### **Carboxymethylcellulose Encapsulated Fingolimod, siRNA @ ZnO Hybrid Nanocomposite as Anti-Alzheimer's New Material**

Nuha B. Aljohani,<sup>a,b</sup> Safaa Y. Qusti,<sup>a</sup> Madeeha Alsiny,<sup>a</sup> Fadwa Aljoud,<sup>c</sup> Norah Bakheet

Aljohani,<sup>d</sup> Eman S. Alsolami,<sup>e</sup> Khalid A. Alamry<sup>e</sup> and Mahmoud A. Hussein<sup>\*e,f</sup>

<sup>a</sup> Biochemistry Department, Faculty of Science, King Abdul Aziz University, Jeddah 21589,  
Kingdom of Saudi Arabia

<sup>b</sup> Biochemistry Department, faculty of science, University of Tabuk, Tabuk, Kingdom of Saudi  
Arabia

<sup>c</sup> Regenerative medicine unit, King Fahd Medical Research Centre, King Abdul Aziz University,  
Jeddah 21589, Saudi Arabia

<sup>d</sup> King Abdul Aziz University Hospital, Jeddah, Kingdom of Saudi Arabia

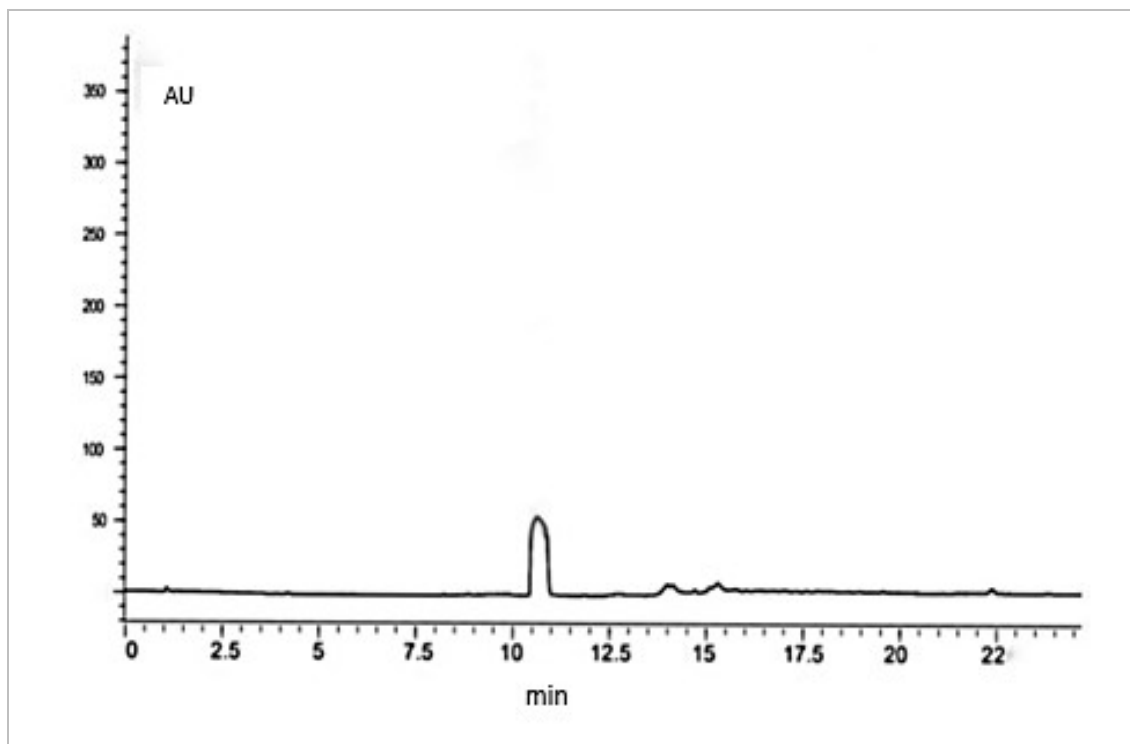
<sup>e</sup> Chemistry Department, Faculty of Science, King Abdulaziz University, P.O. Box 80203,  
Jeddah 21589, Saudi Arabia

<sup>f</sup> Chemistry Department, Faculty of Science, Assiut University, Assiut 71516, Egypt

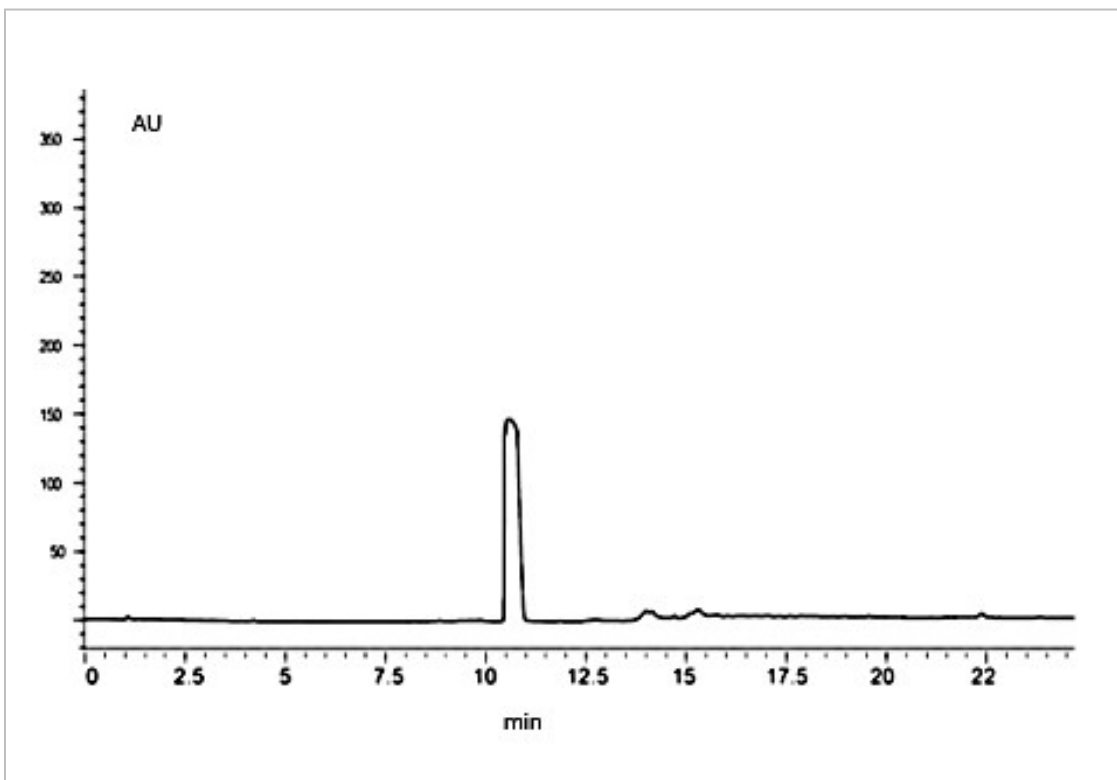
\* Corresponding author: Mahmoud A. Hussein (maabdo@kau.edu.sa,  
mahussein74@yahoo.com)

## Table of Content

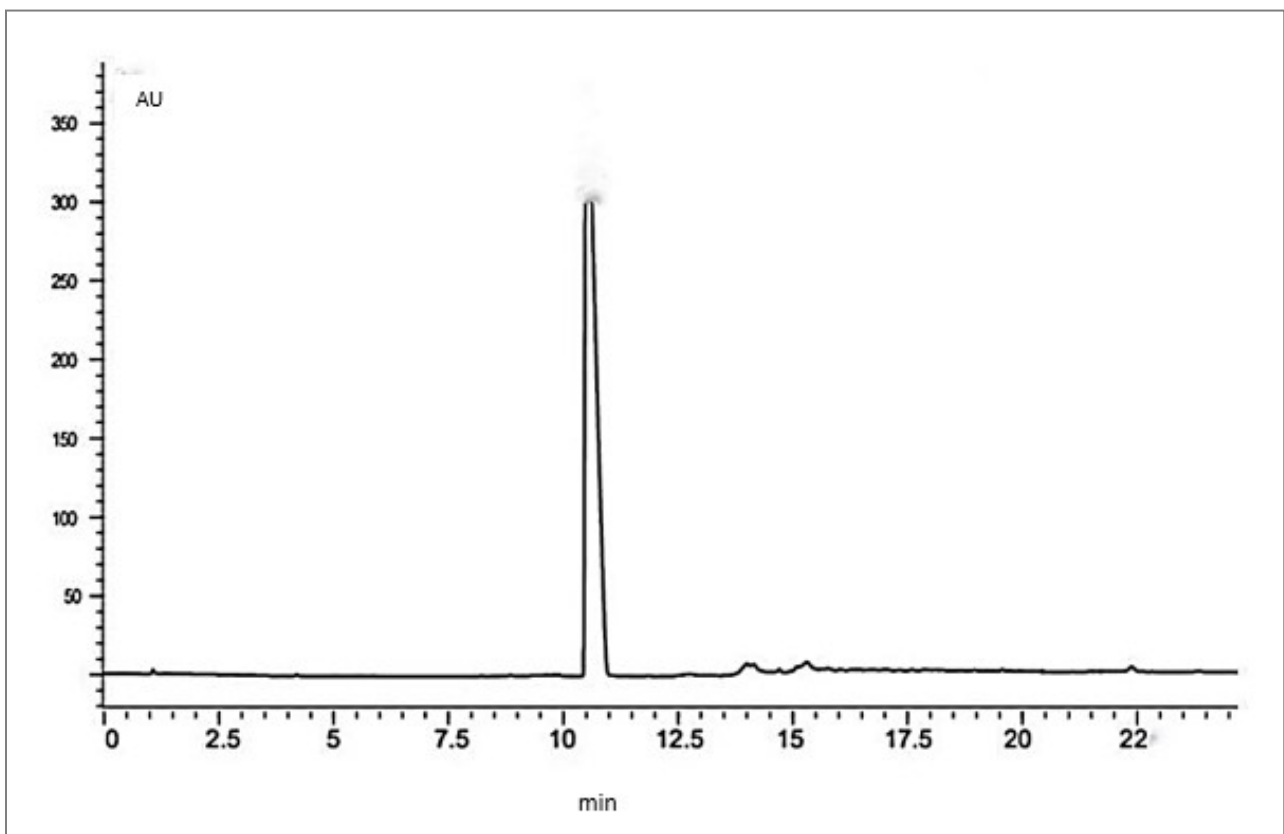
No	Title	Page
1	<b>Fig. S1:</b> In vitro fingolimod release for the nanocomposite (without H <sub>2</sub> O <sub>2</sub> ) after 0.5 hour.....	S3
2	<b>Fig. S2:</b> In vitro fingolimod release for the nanocomposite (without H <sub>2</sub> O <sub>2</sub> ) after 1 hour.....	S4
3	<b>Fig. S3:</b> In vitro fingolimod release for the nanocomposite (without H <sub>2</sub> O <sub>2</sub> ) after 3,4, 6, 8, and 10 (hours) (same chromatogram results for these hours because the release of fingolimod was stable at these times).....	S5
4	<b>Fig. S4:</b> In vitro fingolimod release for the nanocomposite (with H <sub>2</sub> O <sub>2</sub> ) after 0.5 hour.....	S6
5	<b>Fig. S5:</b> In vitro fingolimod release for the nanocomposite (with H <sub>2</sub> O <sub>2</sub> ) after 1 hour.....	S7
6	<b>Fig. S6:</b> In vitro fingolimod release for the nanocomposite (with H <sub>2</sub> O <sub>2</sub> ) after 3,4, 6, 8, and 10 (hours) (same chromatogram results for these hours because the release of fingolimod was stable at these times).....	S8



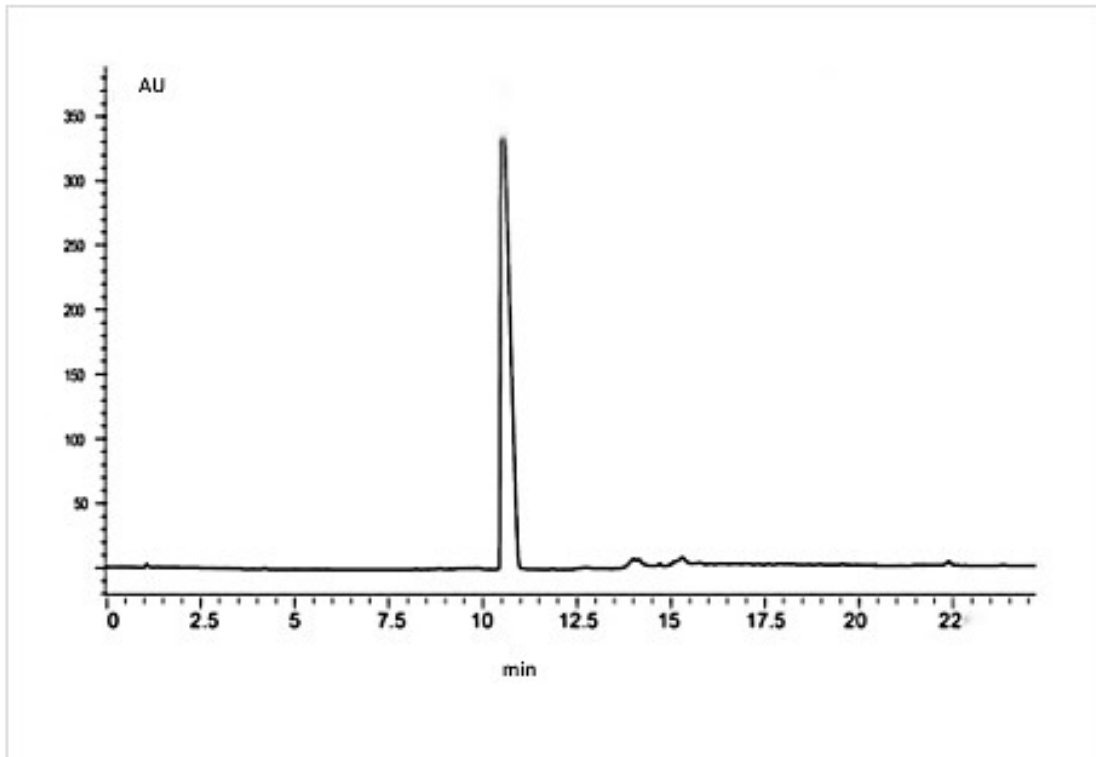
**Fig. S1**



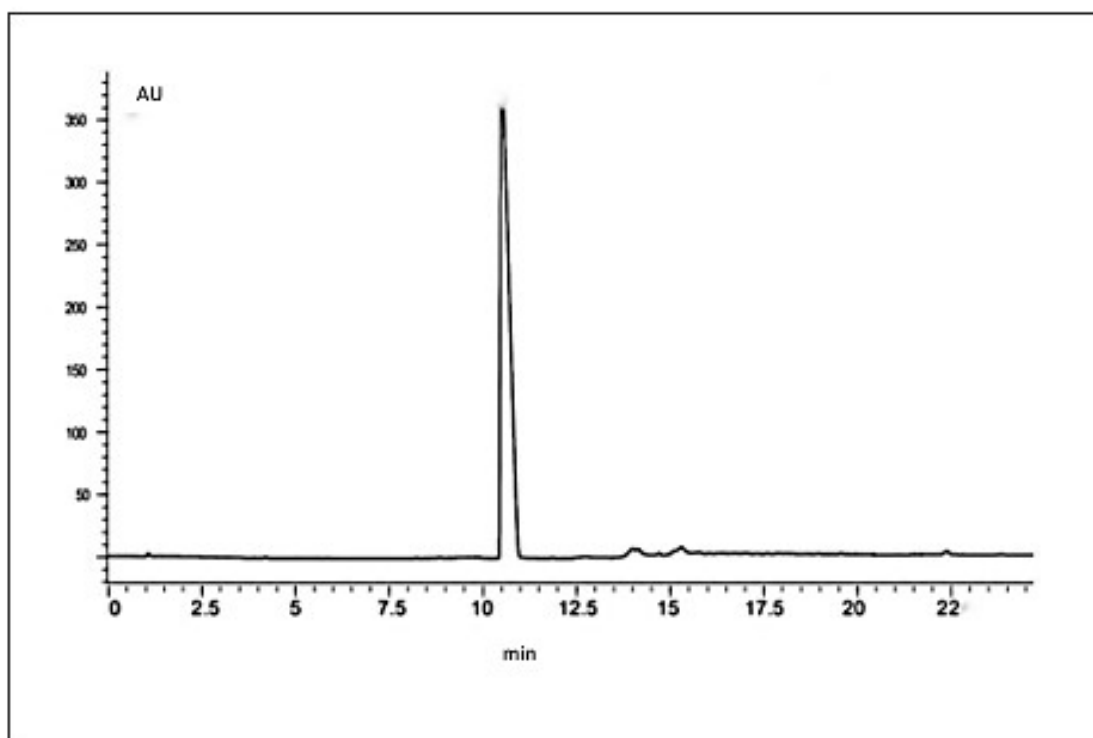
**Fig. S2**



**Fig. S3**

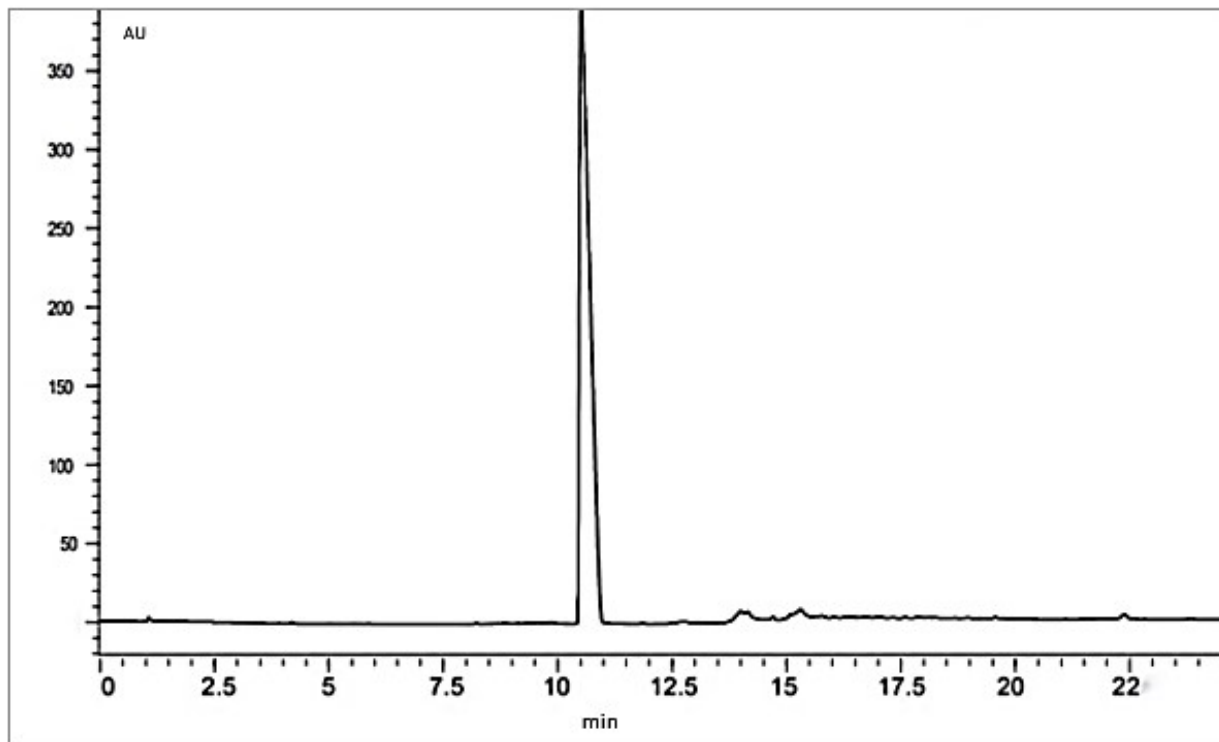


**Fig. S4**



**Fig. S5**





**Fig. S6**