

Response to Reviewer's Comments

We thank the reviewer for his/her positive comments on our manuscript and for considering the manuscript for publication. We have modified the manuscript according to his/her recommendations. Please find our responses below (all changes are highlighted in red in the manuscript).

REVIEWER 1:

Point 1: Does the title accurately reflect the content and of the paper? No, since the synthesized compound whether can be used as the theranostic candidates or not, study for it has not been carried out. I suggest that the title should be changed. That the future purpose is for the theranostic candidates, it can be explained in the introduction.

Response 1: We are very much thankful to the reviewer for her/his deep and thorough review. We have changed the title of our manuscript to "Efficient and Practical Radiosynthesis of Novel [¹³¹I]-Xanthine and [¹³¹I]-Hypoxanthine." The statements in the introduction (last paragraph) have already been included to emphasize the prospect of the labeled compounds as valuable theranostic agents.

"This study could provide a basis for the development of radiolabeled xanthine and hypoxanthine that may potentially be used as theranostic agents to target xanthine oxidase signaling involved in a number of diseases or other ailments."

Point 2: Do the figures and tables aid the clarity of the paper? Yes, but; 1. for aesthetics, please the font size of Atom symbol reduced slightly. Please be changed for all. 2. Fig. 5 and 6: a) please remove the frame/border; b) please make the graph line thicker. PLEASE have a look the Supplement form as attached file.

Response 2: We thank the reviewer for this point. We have reduced the font size of atom symbol from Arial 8 to Arial 7, removed the frames in Fig. 5 and Fig. 6, and made the graph lines thicker, as recommended.

Point 3: Is it placed in a suitable context with adequate reference to international literatures? Is state of the art adequate? Yes, but 33% (10 of 30) references have been published mor than five years (Please see the supplement form.

Response 3: We thank the reviewer for this point. We have updated several old references (refs 6-9, 11-12) into more recent ones. We have also added several recent references to improve the quality of the manuscript. The manuscript as it is now, contains 35 references, with 29 references (82%) from the last five years.

Point 4: It is better to use passive sentence.

Response 4: We have modified the first sentence in conclusion. It now reads "In the present study, novel [¹³¹I]-3,7-dihydropurine-2,6-dione ([¹³¹I]-xanthine) and [¹³¹I]-1,9-dihydro-6H-purin-6-one ([¹³¹I]-hypoxanthine) have been successfully radiosynthesised through efficient and practical radiolabeling procedures."

Sincerely,
Authors