

Current Pharmaceutical Analysis

Manuscript Evaluation Form

Editor-in-Chief: Anastasios Economou, Department of Chemistry, Laboratory of Analytical Chemistry, University of Athens, Athens, Greece

PAPER TITLE	Synthesis and characterization of potential and degraded impurities of Regadenoson
AUTHOR(S) NAME	S.Sathiyarayanan, C.S.Venkatesa and S.Kabilan

Sec. A: REFEREE'S ASSESSMENT

(cross as appropriate)

Criterion	Excellent	Good	Fair	Poor
Originality of the topic	x			
Technical Quality		x		
Importance in its Field	x			
Style & Overall Representation		x		
Readily Understandable	x			
Suitability for the Journal	x			
Adequate Illustrations or Drawings	x			
English language		x		
Description	Yes	No	Comments/ Suggestions	
Does the title represent manuscript's contents?	x			
Is the Abstract accurate and concise?	x			
Are the approach/ methods properly described?	x			
Are the conclusions and interpretations sound?	x			
Are the references properly cited?	x			
Is this a new/ original/ contribution?	x			
Is it within the scope of the journal?	x			
Overall the Paper is Rated:	(Excellent ----- Poor) 10 9 8 7 6 5 4 3 2 1			

Sec. B: REFEREE'S RECOMMENDATIONS

OTHER SPECIFIC CRITICISMS

Accept with minor changes

x

Imperfect style

x

Accept with major changes

Too long

Reject in current form, but may be resubmitted

References incorrectly presented

Reject, with no resubmission

Typographical and Grammatical errors

x

PAPER TYPE: Research article

Review article

Letter article

BENTHAM SCIENCE PUBLISHERS:

Bentham Science Publishers
 Executive Suite Y-2, P.O. Box 7917, Saif Zone, Sharjah, U.A.E.
 Fax Nos: + 215-3109757 (USA) , + 971-6-5571134 (UAE)
 Please send your comments via email at: cpa@benthamscience.org

Confidential Comments to the Editor (not for Transmission to Authors):

This article is within the scope of the journal and suitable for publication, after some revision.

Comments for the Authors (continue on another sheet, if necessary):

Review of the article entitled

Synthesis and characterization of potential and degraded impurities of Regadenoson,
by S.Sathiyarayanan, C.S.Venkatesa and S.Kabilan

In this study five novel degradation products were found under degradation conditions of regadenoson, along with process related impurities, which were not reported earlier. All the degradation products were characterized by the advanced spectroscopic methods, such as IR, ^1H NMR, ^{13}C NMR and mass spectrometry. This article is within the scope of the journal and suitable for publication, after some revision.

The English language, grammar and spelling have to be improved.

For example, the above mentioned sentence should be stated in the abstract, in conclusion.

In the abstract: HPLC method was used for the analysis of related substances.

, which were not reported earlier

In Key words, mention IR, mass and NMR spectroscopy

In the Introduction, on page 3, replace ($140\text{ mgkg}^{-1}\text{min}^{-1}$), instead of (140mcg/kg/minute)

State: for the identification, synthesis and characterization

Place Figure on page 3, at the first place where it is mentioned, or after the first paragraph.

On page 4, So far there are no literature reports, instead of is

Use comma at the adequate places of the manuscript, before, as well as

HPLC grade methanol and acetonitrile were obtained from Merck, Darmstadt, Germany

Ammonium format and formic acid (MS grade) were purchased from Biosolve Chemie

On page 5, sonication bath, instead of sonicator

The IR spectra were recorded by Shimadzu FTIR spectrometer IR Prestige-21 (Shimadzu Corporation, Kyoto, Japan) at a resolution of 2 cm^{-1} , in the frequency range of $400\text{-}4000\text{ cm}^{-1}$.

Add comma before, ion trap was controlled

Separate adequate sentences with a space, add or delete spaces at the adequate places in the manuscript, between some words or numbers.

On page 6, state: The reaction mixture became clear

Use the Past Tense also in the second paragraph of this page, as well as at the adequate places in the manuscript

On pages 6 and 7, correct the numbers of subheadings.

State: drying under high vacuum resulted, instead of dried under high vacuum

On page 7, to give pale yellow color solid

BENTHAM SCIENCE PUBLISHERS:

Bentham Science Publishers

Executive Suite Y-2, P.O. Box 7917, Saif Zone, Sharjah, U.A.E.

Fax Nos: + 215-3109757 (USA), + 971-6-5571134 (UAE)

Please send your comments via email at: cpa@benthamscience.org

The solid was filtered
, using silica gel and 5 % ethyl acetate/hexane as the eluent
The pure fractions were collected and the solvent was evaporated. Drying under high vacuum gave pale yellow color compound (yield: 45%).
The correct spelling is color.
On page 8, add (A-E) after the possible impurities
Use plural for several processes
On page 9, state: the mass spectrum showed a peak at m/z 259
If impurity B carries over further
The obtained product was checked by the HPLC method
, which confirms that, or add point and the new sentence. This confirms that
On page 10, ¹H NMR analysis, instead of HRMS analysis
Mention all the spectroscopic methods that were used for the characterization of certain impurities
The correct number for Scheme 3, currently, on page 10 is Scheme 2.
This scheme should be placed on page 9, at the first place where it is mentioned.
Move also, from page 10 to page 9, the next, adequate part of the text, related to Scheme 2, where it is first mentioned, after the end the first paragraph:
The de-glycosylation of ribonucleoside proceeds through S_N1 type mechanism involving the expulsion of the nucleobase leaving group followed by hydrolysis of the ribose oxocarbenium intermediate [10]. The same de-glycosylation mechanism is applicable to all impurities. Check the numbers of references.
The correct number for Scheme 2, currently, on page 10 is Scheme 3.
On pages 11 and 12, mass spectrometry, or mass spectrometric analysis
On page 12, Trialdehyde is one of the major impurities
In the sentence before each scheme, state the impurity which is synthesized, for example on page 13, or add (Scheme 8) after impurity F, and (Scheme 9) after impurity G.
On pages 13-15, use the abbreviation calc. for calculated.
In Conclusion, Five novel degradation products were found under degradation conditions along with process related impurities, which were not reported earlier.
State the complete term and the abbreviation at the first place where it appears in the manuscript, in the rest of the text use either the abbreviation or full term.
Use one space between the numbers and units of measure in the entire manuscript, as well as symbol h for hours, instead of hrs
Place in the same row the numbers and units of measure, as well as the names of compounds, wherever it is possible, for example, on page 7, 8.0 ml, 7.5 ml, 2-hydrazino adenosine, on page 8, 25 mg, on page 9, 2-hydrazino adenosine, on page 14, 1610.56 cm⁻¹
Place the Figures, Tables and Schemes at the first place where they are mentioned in the manuscript, in the adequate order. Add the number of last page to the ref. 4 and the numbers of issues to the ref. 2, 4, 9 and 10.
The quality of Figure 2 can be improved.
Put the points after the legends of figures and schemes.
Delete the point after the caption of Table 3.

FIELD OF EXPERTISE OF REFEREE: Materials and chemical technologies, nanotechnologies, biomedical engineering, chemistry, medicinal and pharmaceutical chemistry

Name & Affiliation of referee: Tamara Jovanovic, Department of Biomedical Engineering, Faculty of Mechanical Engineering, University of Belgrade, Kraljice Marije 16, 11120 Belgrade, Serbia

Dr Tamara Jovanovic / March 8, 2019

SIGNATURE OF REFEREE / DATE

BENTHAM SCIENCE PUBLISHERS:

Bentham Science Publishers
Executive Suite Y-2, P.O. Box 7917, Saif Zone, Sharjah, U.A.E.
Fax Nos: + 215-3109757 (USA), + 971-6-5571134 (UAE)
Please send your comments via email at: cpa@benthamscience.org