

Peer Review Report

Review Report on The modulation of Hexosamine Biosynthetic Pathway impacts the localization of CD36 in macrophages

Brief Research Report, Acta Biochim. Pol.

Reviewer: Jiayu Yu

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EVALUATION

Q 1 Please summarize the main findings of the study.

This manuscript demonstrates the impact of various inhibitors on the Hexosamine Biosynthetic Pathway, specifically highlighting their influence on UDP-GlcNAc and O-GlcNAc, which in turn affects the colocalization of CD36 with Rab-5 in cultured macrophages.

Q 2 Please highlight the limitations and strengths.

Limitation: lack alternative models to validate the functionality of these glycosylations, and did not demonstrate whether this influence disturbs the physiological conditions of macrophages.

Strength: study straightforwardly demonstrates the influence of the Hexosamine Biosynthetic Pathway on CD36 colocalization using inhibitors and immunofluorescence staining.

Q 3 Please comment on the methods, results and data interpretation. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns

The methods effectively address the objectives of this study. Additionally, the Figures exhibit high-quality standards suitable for publication.

Check List

Q 4 Is the English language of sufficient quality?

No.

Q 5 Is the quality of the figures and tables satisfactory?

Yes.

Q 6 Does the reference list cover the relevant literature adequately and in an unbiased manner?

Yes.

Q 7 Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)

Yes.

Q 8 Are the methods sufficiently documented to allow replication studies?

Yes.

Q 9 Are the results presented correctly and interpreted in light of previous knowledge?

Yes.

Q 10 Do the discussion and conclusion address the research questions or hypothesis posed in the introduction?

Yes.

Q 11 Are the data underlying the study available in either the article, supplement, or deposited in a repository? (Sequence/expression data, protein/molecule characterizations, annotations, and taxonomy data are required to be deposited in public repositories prior to publication.)

Yes.

Q 12 Does the study adhere to ethical standards including ethics committee approval and consent procedure?

Yes.

Q 13 Have standard biosecurity and institutional safety procedures been adhered to?

Yes.

Q 14 Please provide your detailed review report to the editor and authors (including any comments on the Q4 Check List):

1. The content of this manuscript needs modification.
 - 1.1 particularly the Abstract, which fails to adequately present the results of the study.
 - 1.2 There's no title for part 2 result.
2. There is a typographical error on line 136, "BPH."
3. In Figure 2, the change in expression of Actin under this treatment renders it unsuitable as a control.

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