

## Peer Review Report

# Review Report on Sensing Antibody Functions with a Novel CCR8 Response Engineered Cell

Original Research, Acta Biochim. Pol.

Reviewer: Mark Charles Glassy

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### EVALUATION

#### **Q 1** Please summarize the main findings of the study.

This study describes the successful engineering of a useful cell line that regulates cAMP signaling through the CCR8 receptor. Such a cell line eliminates the use of laborious assays/tests. Can the technology be used to engineer other 'biosensor' activities? Developing a rapid test to screen for useful reagents will be beneficial to others.

#### **Q 2** Please highlight the limitations and strengths.

awkward English usage and grammar throughout the manuscript. (e.g., line 168: ..."pretty low"...). Plural words that should be single and constrained sentence structure in some areas.

The fusion partner SP2/O is not the best fusion partner. For long term stability best to use the "356" murine fusion partner.

main concern is the trypsin-removal of the cells. Suggests the CCR8 receptor is trypsin-resistant. Does the assay work with non-trypsinized cells?

#### **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.

results support the conclusions

### Check List

#### **Q 4** Please provide your detailed review report to the editor and authors (including any comments on the Q4 Check List)

Other than grammatical issues the main concern is the trypsinization of the cells. Trypsin removes/alters many surface proteins and does this affect the assay results? This should be addressed

#### **Q 5** Is the English language of sufficient quality?

No.

#### **Q 6** Is the quality of the figures and tables satisfactory?

Yes.

#### **Q 7** Does the reference list cover the relevant literature adequately and in an unbiased manner?

Yes.

**Q 8** Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)

Yes.

**Q 9** Are the methods sufficiently documented to allow replication studies?

Yes.

**Q 10** 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 11** Does the study adhere to ethical standards including ethics committee approval and consent procedure?

Yes.

**Q 12** Have standard biosecurity and institutional safety procedures been adhered to?

Not Applicable.

#### QUALITY ASSESSMENT

**Q 13** Originality

**Q 14** Rigor

**Q 15** Significance to the field

**Q 16** Interest to general audience

**Q 17** Quality of the writing

**Q 18** Overall quality of the study