

Editorial Policy Checklist

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Competing interests

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Competing interests declaration

In the interest of transparency and to help readers form their own judgements of potential bias, Nature Research journals require authors to declare any competing financial and/or non-financial interest in relation to the work described in the submitted manuscript.

- ☒ We declare that none of the authors have competing financial or non-financial interests as defined by Nature Research.
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Prior to submission all listed authors must agree to all manuscript contents, the author list and its order and the author contribution statements. Any changes to the author list after submission must be approved by all authors.

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All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A list of figures that have associated raw data
- A description of any restrictions on data availability

- ☒ We have provided a full data availability statement in the manuscript.

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Confirm that all relevant data are deposited into a public repository and that accession codes are provided.

- ☒ All relevant accession codes are provided ☐ Accession codes will be available before publication ☐ No data with mandated deposition

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Code availability statement

For all studies using custom code or mathematical algorithm that is deemed central to the conclusions, the manuscript must include a statement under the heading "Code availability" describing how readers can access the code, including any access restrictions. Code availability statements should be provided as a separate section after the data availability statement but before the References.

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For all data presented in a plot, chart or other visual representation confirm that:

n/a | Confirmed

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- ☐ ☒ The format shows data distribution clearly (e.g. dot plots, box-and-whisker plots)
- ☐ ☒ Box-plot elements are defined (e.g. center line, median; box limits, upper and lower quartiles; whiskers, 1.5x interquartile range; points, outliers)
- ☐ ☒ Clearly defined error bars are present and what they represent (SD, SE, CI) is noted

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Does not apply

Involved in the study

- ☐ ☒ Macromolecular structural data
- ☒ ☐ Unique biological materials
- ☒ ☐ Research animals and/or animal-derived materials that require ethical approval
- ☒ ☐ Human embryos, gametes and/or stem cells
- ☒ ☐ Human research participants
- ☒ ☐ Clinical data

Macromolecular structural data

Policy information about [special considerations](#) for specific types of data

Validation report

- ☒ We have provided an official validation report from [wwPDB](#) for all macromolecular structures studied.

I certify that all the above information is complete and correct.

Typed signature HOUQIANG LI; QUAN CHEN; HAIYAN LIU

Date Jan 5, 2022

